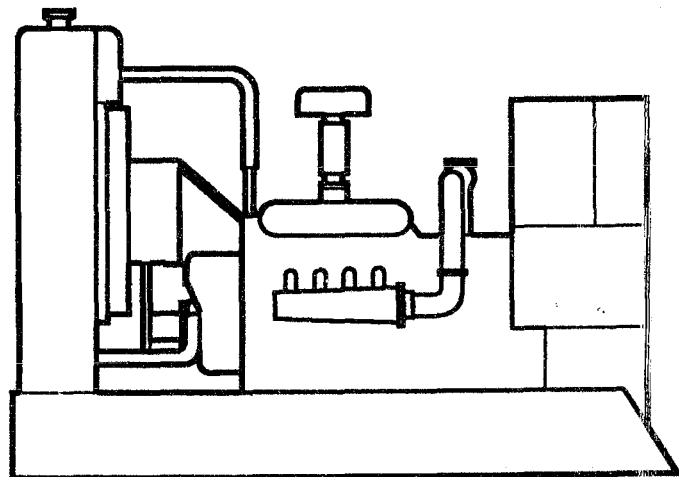




# PARTS CATALOG

## EN Generating Set



928-0226  
2-92 (Spec E-F)  
Replaces 9-90 (Spec E-F)  
Printed in U.S.A.



## Introduction

This Parts Manual applies to the Generator Set(s) Listed below. The illustrations are arranged in an assembly of related parts, and each part or assembly is identified by a Reference Number. All parts illustrated are typical, and unless otherwise mentioned in the description column of the parts list, the parts are interchangeable between all models.

These typical illustrations are subject to change and reflect only the latest replacement for the original factory installed parts. The Right and Left sides of the Generator Set are determined by FACING the engine end (FRONT) of the Set.

### Set Data Table

MODEL IDENTIFICATION	RATING	RPM RATING	BATTERY VOLTAGE
55.0EN - */ # @	55,000 WATTS	1800 RPM	12 VDC
60.0EN - */ # @	60,000 WATTS	1800 RPM	12 VDC
70.0EN - */ # @	70,000 WATTS	1800 RPM	12 VDC

### Electrical Data Table

*VOLTAGE CODE	VOLTS	HERTZ	WIRE	PHASE	NOTES
B, 3	120/240	60	3	1	
E, 6D	240/480	60	4	3	
F, 7	220/380	60	4	3	
H, 9X	347/600	60	4	3	
L, 15	120/240	60	12	1	+
L, 15	120/208	60	12	3	+
	120/240				
	127/220				
	139/240				
	240/416				
	254/440				
	277/480				
N, 53	120/240	50	3	1	
Z, 515	110/220	50	12	1	+
	115/230				
Z, 515	110/190	50	12	3	+
	110/220				
	115/200				
	115/230				
	120/208				
	127/220				
	220/380				
	230/400				
	240/416				
	254/440				

- \* - Voltage Codes follow Model Letter designations.
- # - Specification Number: Number 1 is Standard, all others indicate variations.
- @ - Specification Letter: Letter advances ( A to B, B to C, etc) with major manufacturing changes.
- + - These Generators are Reconnectible, refer to Operator's Manual for wiring data.

### Engine Replacement Parts

All Engine replacement parts must be ordered from the engine manufacturer, except those modified or added by Onan. When ordering engine parts, refer to the engine manufacturer's nameplate and supply the Model, Specification, Serial Numbers and other available information. Refer to the engine manufacturer's manuals for your nearest authorized parts distributor or parts center; or contact the Onan Distributor from whom you purchased this Set, for assistance in ordering replacement parts. Ford Model Number for this set is 460-GP6005AS030B.



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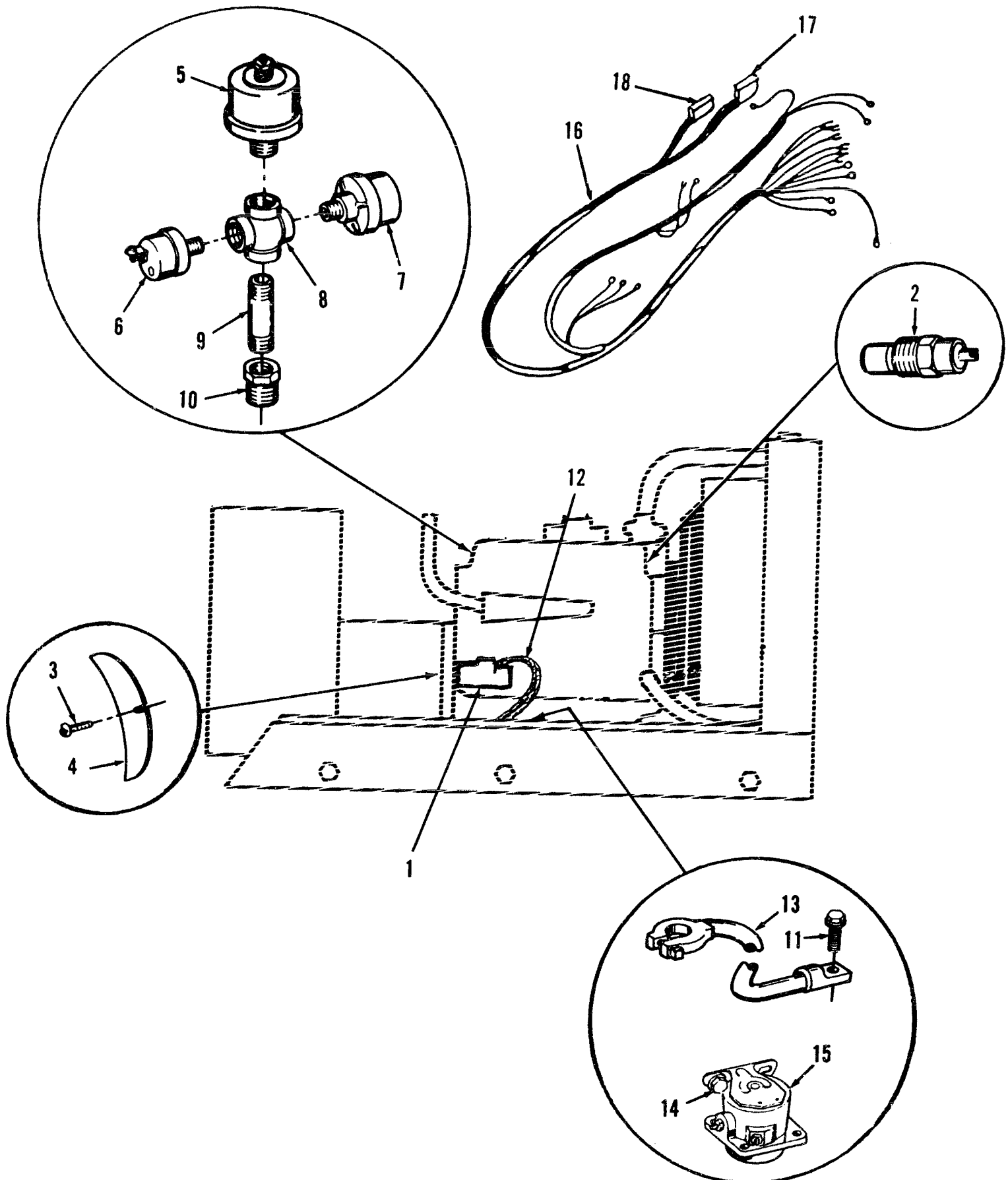


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# Engine Components - Left Side



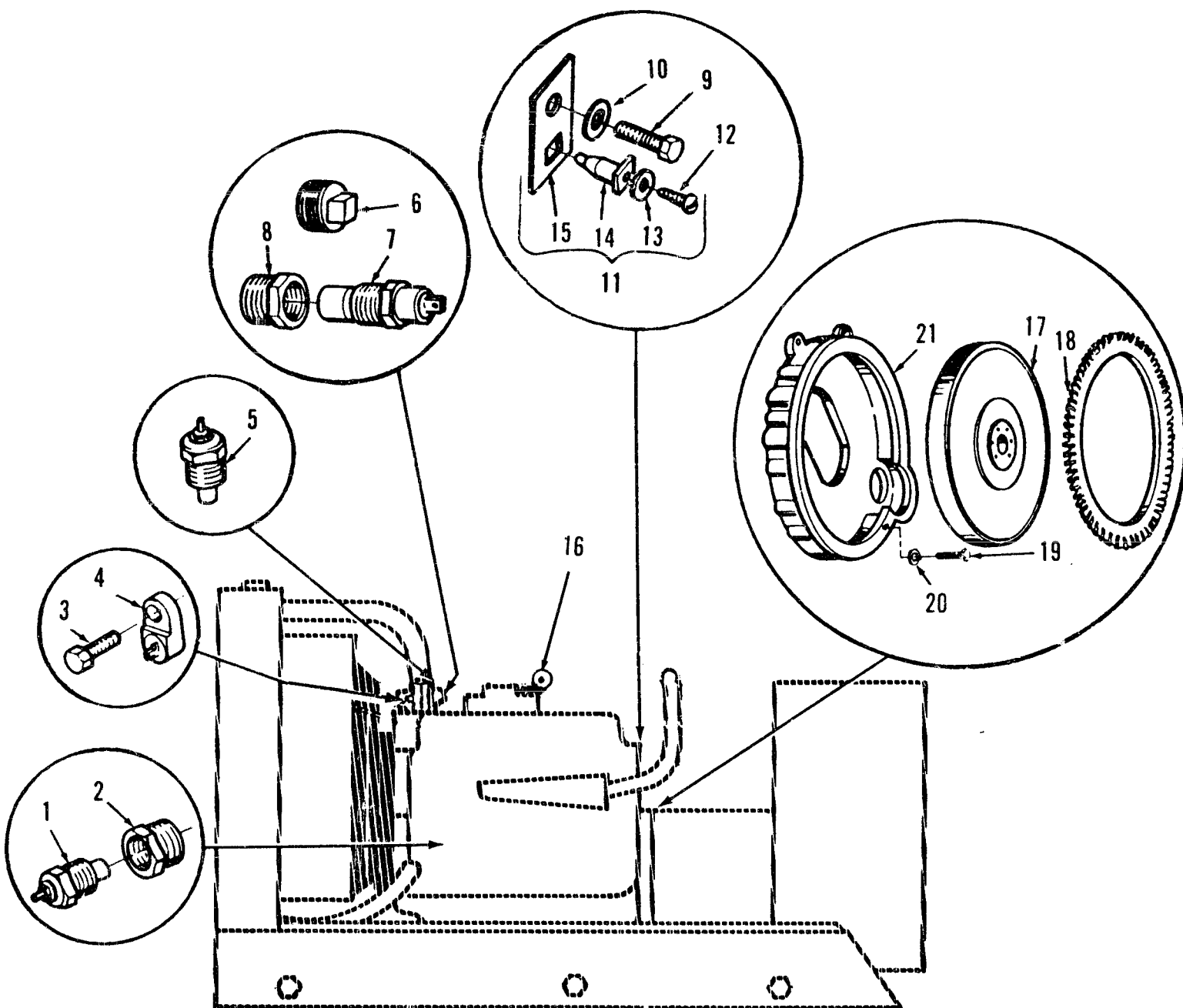


## Engine Components - Left Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1		1	Starter 12 VD (Fund Part No. 02TF-1101-44)	12	226-3413	1	Lead, Electrical (18-1/2" LG)
2	193-0247	1	Sender, Temperature - Engine Coolant	13	416-0019	1	Cable, Battery Positive (18-1/2" LG)
3	812-0075	1	Screw, Machine - Round Head (#8-32 x 1/4")		416-0530	1	Negative (17" LG)
4	191-0773	1	Shield - Starter Mounting	14	821-0018	2	Screw, Cap - Lock Head (1/4-20 x 5/8")
5	193-0244	1	Sender, Pressure - Oil (E1)	15	307-1166	1	Solenoid, Electrical - Start, 12 VDC (K6)
6	309-0544	1	Switch, Pressure - Low Oil (S1)	16			Harness, Wiring - Engine (Includes Connectors)
7	309-0545	1	Switch, Pressure - Low Oil, Pre-Alarm (6)		338-2053	1	Use with Motorola Alternator
8	505-0763	1	Cross, Pipe (1/8 NPT)		338-2630	1	Use with Bosch Alternator
9	505-0104	1	Nipple, Pipe (1/8 NPT x 2")	17	323-1304	1	Housing, Connector - 6 Place
10	505-0007	1	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)		323-1200	6	Contact, Pin
11	800-0071	1	Screw, Cap - Hex Head (7/16-14 x 1")	18	323-1306	1	Housing, Connector - 8 Place
					323-1200	8	Contact, Pin



# Engine Components - Right Side





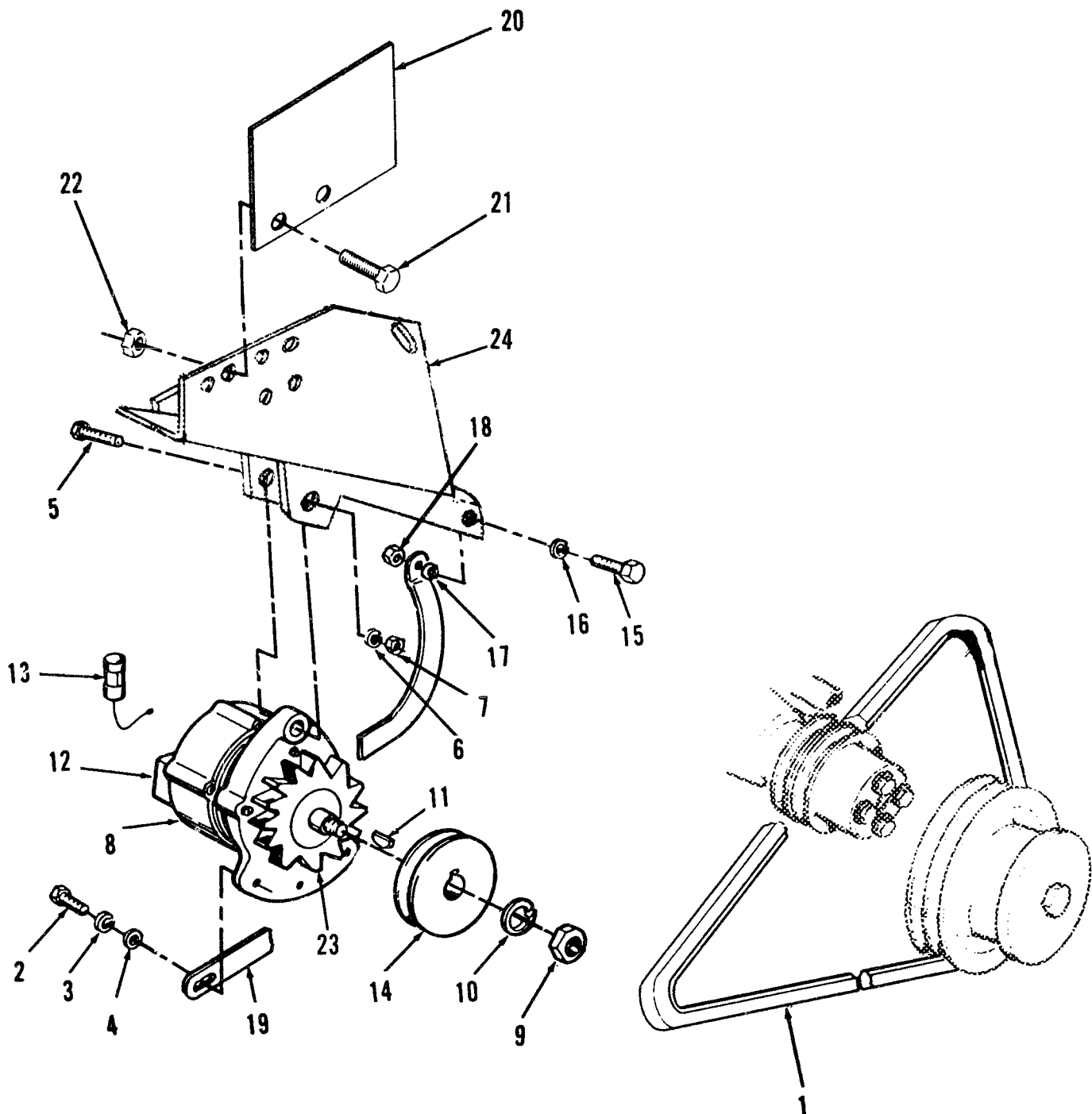
## Engine Components - Right Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	193-0249	1	Sender, Temperature - Oil (E5)	10	853-0016	1	Washer, Lock - EIT (5/16")
2	505-0007	1	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)	11	332-1292	1	Terminal Board (Includes Parts Marked *)
3	821-0029	1	Screw, Lock Head (3/8-16 x 3/4")	12	809-0036	1	*Screw, Thread Cutting - Round Head (#8 x 7/8")
4	309-0269	1	Switch, Thermostatic - Low Engine Temperature (S5)	13	508-0015	1	*Washer, Insulating - Fiber (#8)
5	309-0179	1	Switch, Thermostatic - High Engine Coolant Temperature (S2)	14	870-0196	1	*Nut, Insulating (#8)
6	505-0130	1	Plug, Pipe - Square Head (3/4 NPT)	15	332-1281	1	*Plate, Mounting - Terminal
7	309-0178	1	Switch, Thermostatic - Hi Engine Coolant Temperature (S7)	16	166-0278	1	Coil, Ignition (T1)
8	505-0499	1	Bushing, Reducer - Hex (3/4 NPT x 3/8 NPT)	17	104-1097	1	Flywheel (Includes Ring Gear)
9	800-0026	1	Screw, Cap - Hex Head (5/16-18 x 3/4")	18	104-0723	1	Gear, Ring
				19	800-0072	8	Screw, Cap - Hex Head (7/16-14 x 1-1/4")
				20	850-0055	8	Washer, Lock - Spring (7/16")
				21			Adapter - Generator to Engine
					231-0205	1	Standard
					231-0260	1	With Mag Pickup Tapped Hole

\* - Parts included in Terminal Board.



# Alternator





## Alternator

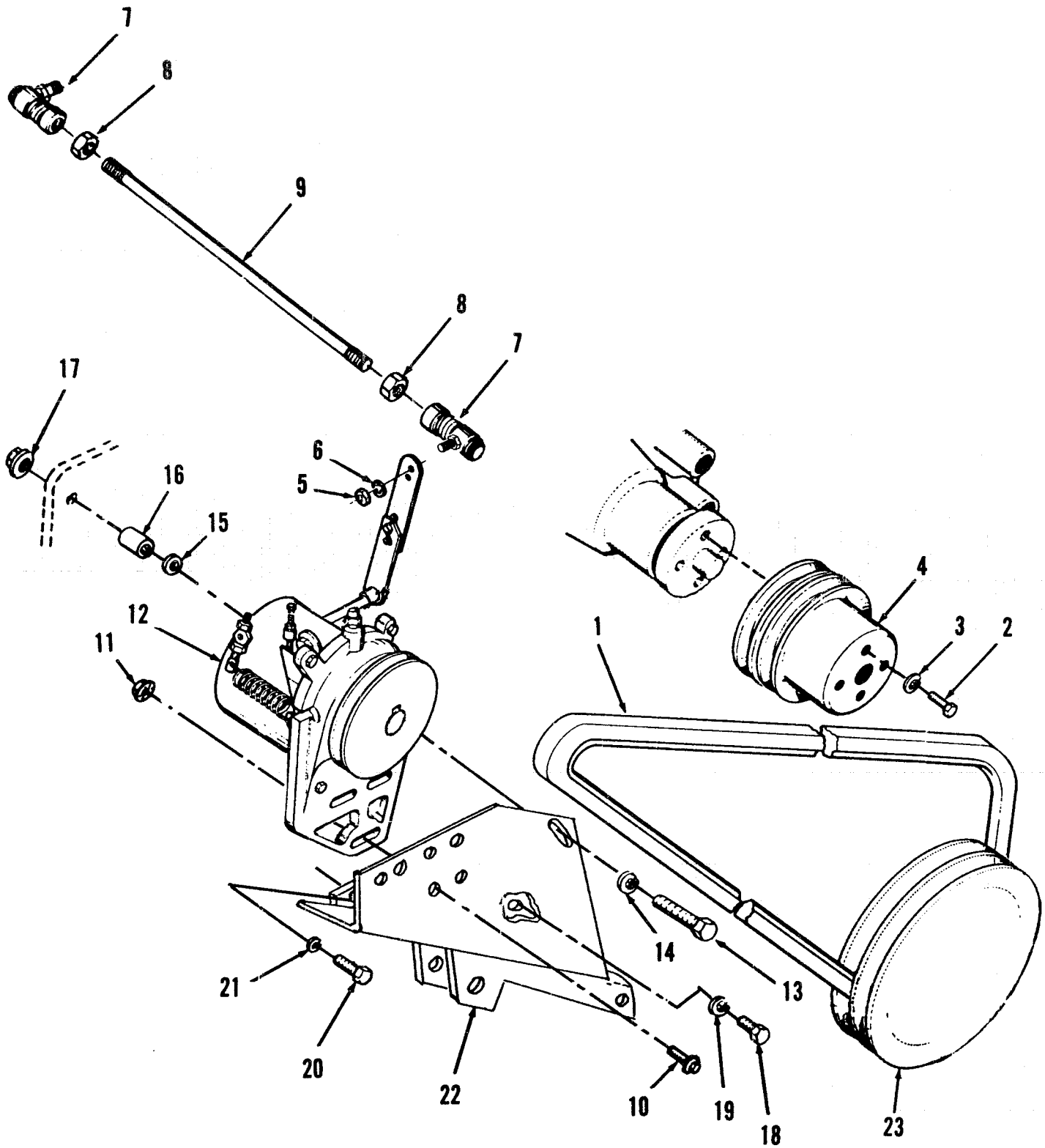
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	511-0131	1	Belt, Drive	9	868-0007	1	*Nut, Hex (5/16-18)
2	800-0027	1	Screw, Cap - Hex Head Used with Motorola Alternator (5/16-18 x 7/8")	10	850-0070	1	*Washer, Lock - Spring (5/8")
	800-2058	1	Used with Bosch Alternator (M8 x 1-1/4 x 25)	11	515-0093	1	*Key, Woodruff (#5)
3			Washer, Lock - Spring	12	191-1390	1	*Regulator, Voltage (Spec E) (Includes Parts Marked #)
	850-0045	1	Used with Motorola Alternator (5/16")	13	312-0201	1	*Capacitor (Spec E)
	350-2008	1	Used with Bosch Alternator (M8)	14			Pulley
4			Washer, Flat		191-1099	1	Spec E
	526-0115	1	Used with Motorola Alternator (11/32" ID x 11/16" OD x 1/16" Thk)		191-1982	1	Begin Spec F
	526-2106	1	Used with Bosch Alternator (M8)	15	800-0029	1	Screw, Cap - Hex Head (5/16-18 x 1-1/8")
5			Screw, Cap - Hex Head	16	850-0045	1	Washer, Lock - Spring (5/16")
	800-0095	1	Used with Motorola Alternator (1/2-13 x 2-1/2")	17	191-0864	1	Spacer
	800-2097	1	Used with Bosch Alternator (M10 x 1-1/2 x 80)	18	862-0015	1	Nut, Hex (5/16-18)
6	850-0060	1	Washer, Lock - Spring (1/2")	19	191-1203	1	Arm, Adjusting
7			Nut, Hex	20	130-3315	1	Guard, Belt
	862-0005	1	Used with Motorola Alternator (1/2-13)	21	102-0455	2	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
	870-2056	1	Used with Bosch Alternator (Self-Locking M10 x 1-1/2)	22	870-0281	2	Nut, Self-Locking (3/8-16)
8			Alternator	23	191-1981	1	Fan
	191-1388	1	Motorola, 12 VDC - Spec E (Includes Parts Marked *)	24			Bracket, Mounting
	191-1983-01	1	Bosch, Spec F (Does Not Include Pulley or Fan)		191-1831	1	Used with Motorola Alternator
					191-2026	1	Used with Bosch Alternator and Electric Governor
					191-2025	1	Used with Bosch Alternator and Mechanical Governor

\* - Parts Included with Alternator

# - Parts Included with Voltage Regulator



# Governor - Mechanical



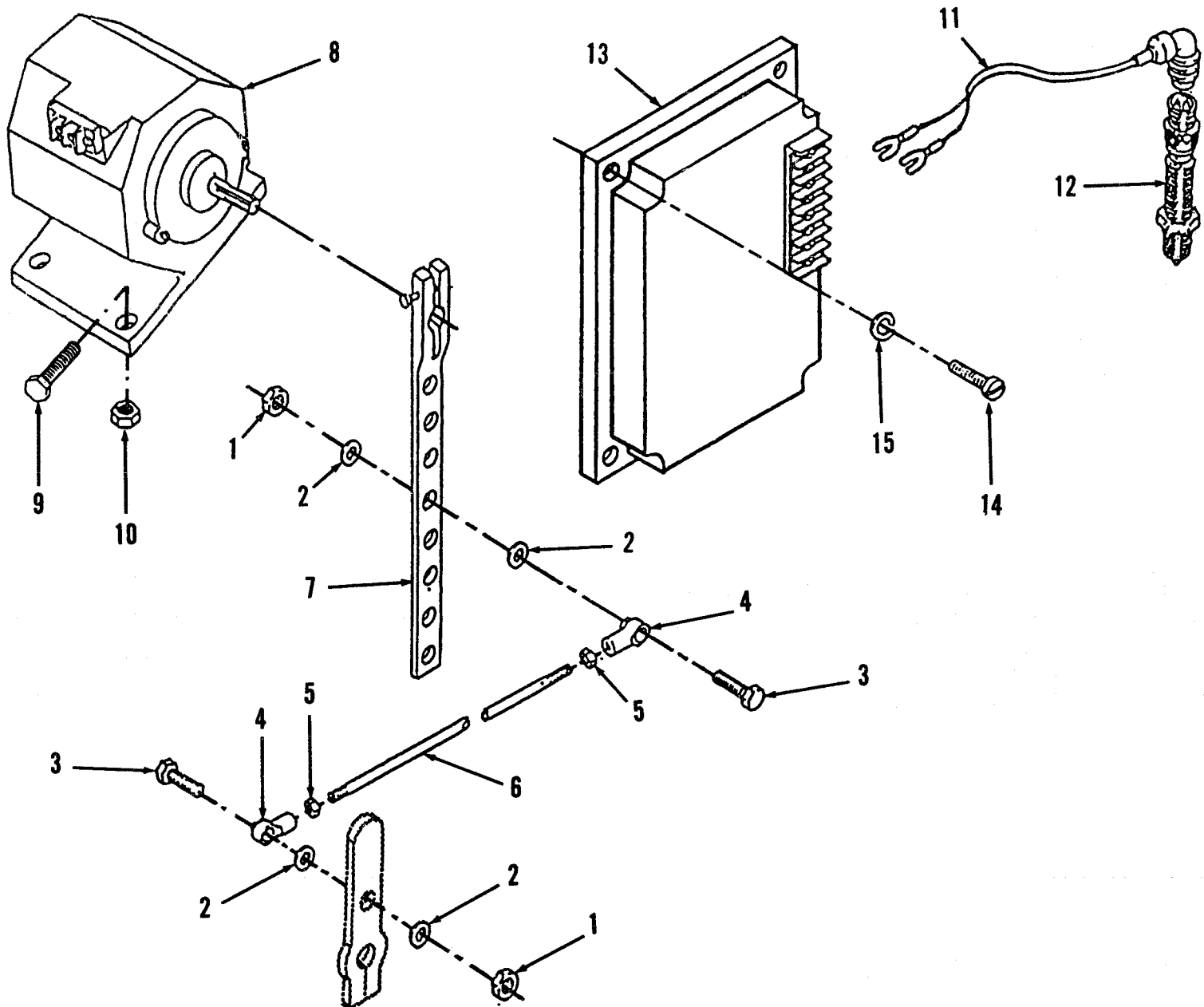


# Governor - Mechanical

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	511-0084	1	Belt, Drive	14	850-0050	1	Washer, Lock - Spring (3/8")
2	801-0027	4	Screw, Cap - Hex Head (5/16-24 x 7/8")	15	526-0026	2	Washer, Flat (13/32" ID x 3/4" OD x 1/16" THK)
3	850-0045	4	Washer, Lock - Spring (5/16")	16	130-0988	1	Spacer, Sleeve
4	132-0261	1	Pulley, Drive - Water Pump	17	870-0281	1	Nut, Self-Locking - Hex Washer Head (3/8-16)
5	115-0025	2	Nut, Hex (1/4-28)	18	800-0048	1	Screw, Cap - Hex Head (3/8-16 x 3/4")
6	850-0040	2	Washer, Lock - Spring (1/4")	19	850-0050	1	Washer, Lock - Spring (3/8")
7	150-0638	2	Joint, Ball	20	800-0069	1	Screw, Cap - Hex Head (7/16-14 x 3/4")
8	115-0025	2	Nut, Hex (1/4-28)	21	850-0055	1	Washer, Lock - Spring (7/16")
9	152-0243	1	Rod, Linkage - Throttle	22			Bracket, Mounting
10	821-0030	3	Screw, Self-Locking - Hex Washer Head (3/8-16 x 1")		191-1831	1	Used with Motorola Alternator
11	370-0281	3	Nut, Self-Locking - Hex Washer Head (3/8-16)		191-2025	1	Used with Bosch Alternator
12	151-0627	1	Governor	23	104-1673	1	Pulley, Crankshaft - Dual Belt (6" OD)
13	800-0052	1	Screw, Cap - Hex Head (3/8-16 x 1-1/2")				



# Governor - Electric

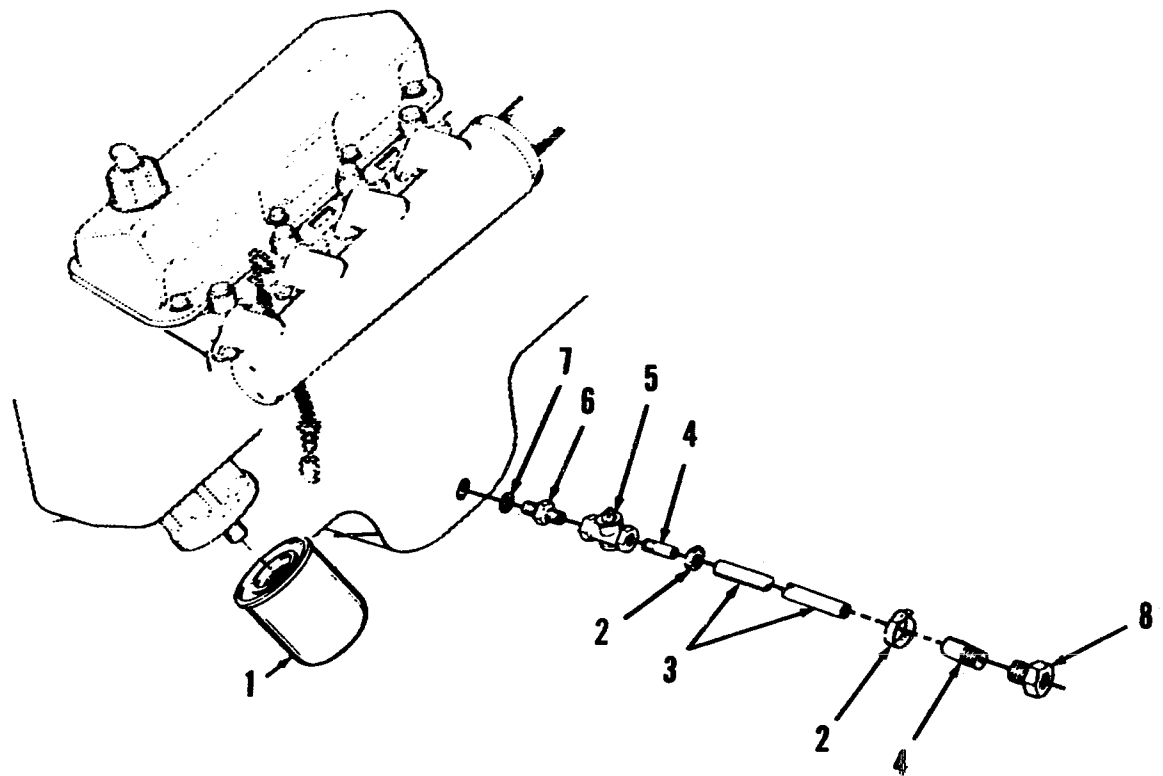


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0131	2	Nut, Hex - W/ET Lockwasher (#10-32)
2	526-0008	4	Washer, Flat (#10)
3	813-0103	2	Screw, Self-Locking - Hex (#10-32 x 1")
4	150-2251	2	Joint, Ball
5	870-0131	2	Nut, Hex
6	150-2218-04	1	Rod, Control
7	151-0567	1	Arm, Governor
8	151-0566	1	Actuator, Governor

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	800-0008	4	Screw, Cap - Hex Head (1/4-20 x 1-1/4")
10	870-0212	4	Nut, Self-Locking - Hex (1/4-20)
11	151-0629	1	Cable, Magnetic Pickup
12	151-0433	1	Sensor, Speed - Magnetic
13	151-0605	1	Controller, Governor
14	813-0098	4	Screw, Machine - Round Head (#10-32 x 1")
15	850-0030	4	Washer, Lock - Spring (#10)



## Oil System Components

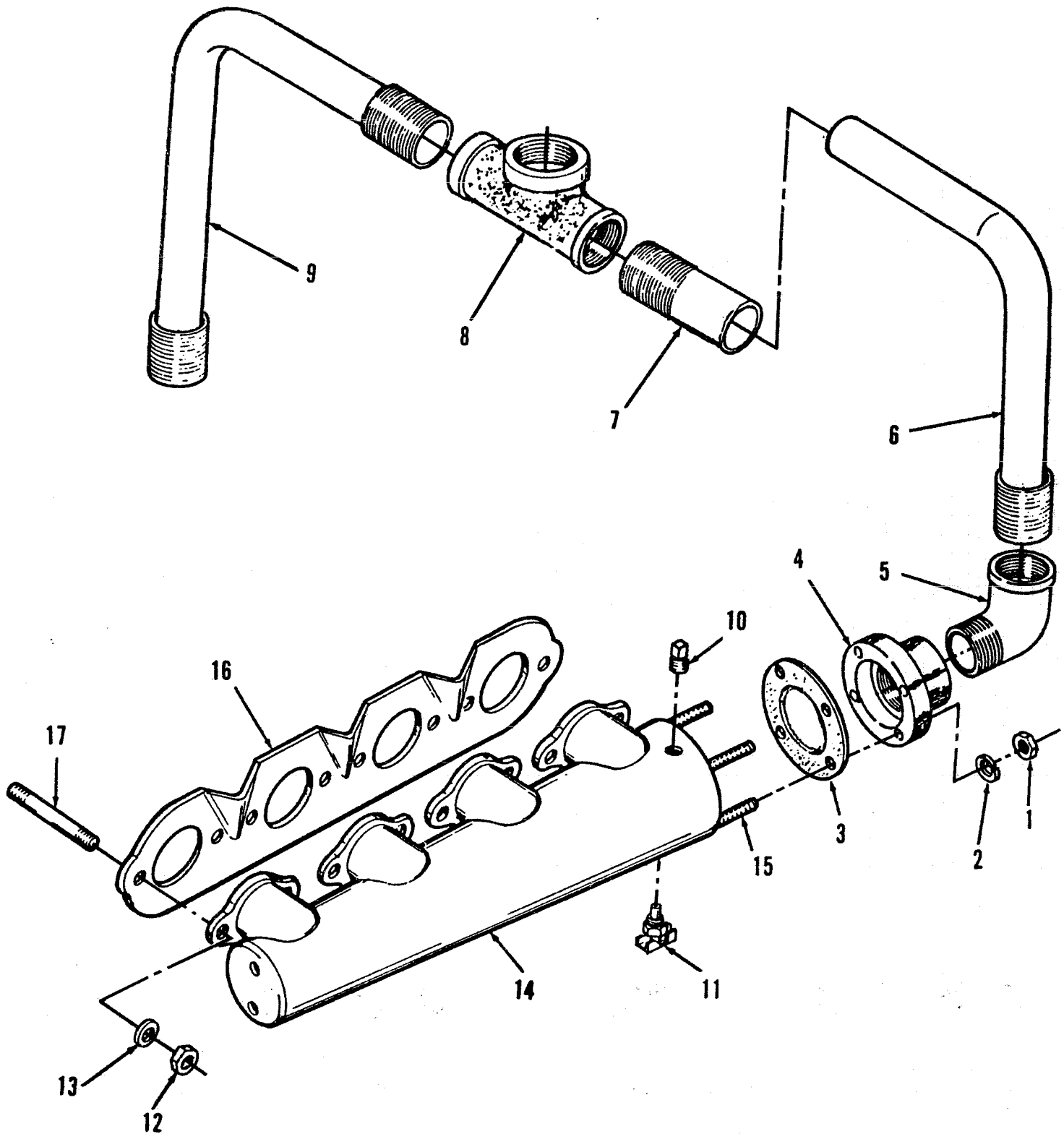


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	122-0193	1	Filter, Oil
2	503-0131	2	Clamp, Hose
3	503-0966	1	Hose, Rubber (5/8" ID)
4	505-0135	2	Nipple, Pipe - Half (3/8" NPT x 1-1/2")
5	504-0030	1	Valve, Cock (3/8 NPT)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	502-1013	1	Adapter, Pipe - Hex (M14 x 3/8 NPT)
7	102-1320	1	Gasket
8	505-0019	1	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)



## Exhaust System Components





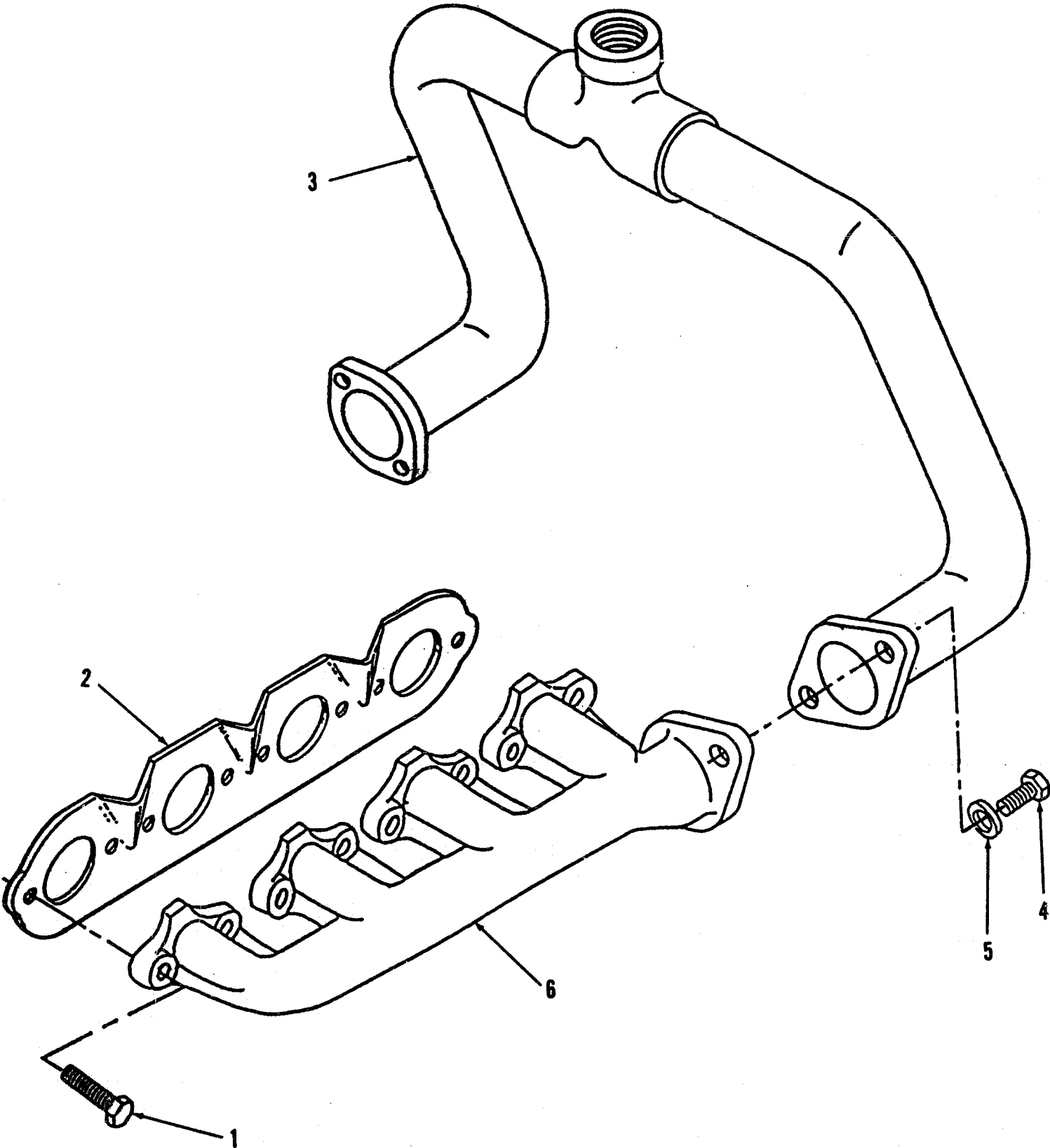
## Exhaust System Components

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0195	8	Nut, Self-Locking - Hex (5/16-24)	10	505-0057	2	Plug, Pipe - Square Head (1/8 NPT)
2	850-0165	8	Washer, Lock - Spring - SST (5/16")	11	504-0005	2	Cock, Drain (1/8 NPT)
3	154-2336	2	Gasket	12	870-0130	16	Nut, Hex (3/8-24)
4	154-1739	2	Flange, Pipe	13	526-0188	16	Washer, Flat - SST (3/8" Nominal)
5	505-0216	2	Elbow, Pipe - Street, 90° (2-1/2 NPT)	14	154-1766	2	Manifold, Exhaust - Liquid Cooled (Includes Parts Marked *)
6	155-1373	1	Tube, Exhaust	15	520-0165	8	*Stud (5/16-24 x 5/16-18 x 1-7/8" LG)
7	155-0615	1	Nipple, Pipe - Half	16	155-1395	2	Gasket
8	505-0373	1	Tee, Pipe - Reducing (2-1/2 NPT x 2-1/2 NPT x 3 NPT)	17	520-0819	16	Stud (3/8-24 x 3/8-16 x 1-7/8" LG)
9	155-1372	1	Tube, Exhaust				

\* - Parts included with Exhaust Manifold.



Exhaust System  
(Dry Manifold)



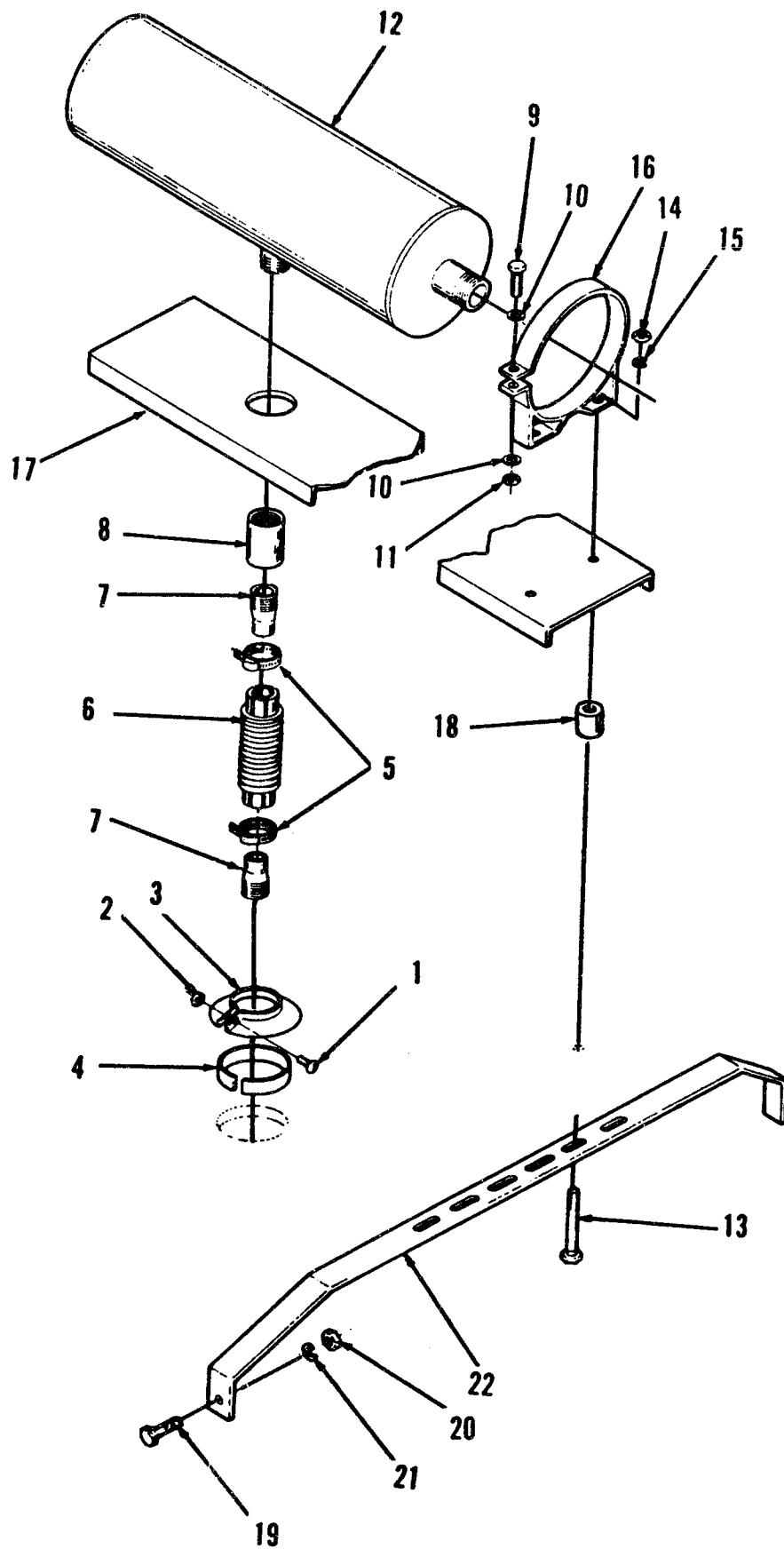


# **Exhaust System (Dry Manifold)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0574	16	Screw, Self-Locking - Hex Head (3/8-16 x 1-3/8")	5	526-0032	4	Washer, Flat (7/16)
2	155-1395	2	Gasket	6			Manifold, Exhaust
3	155-2214	1	Tube, Exhaust		154-2500	1	Left Side
4	800-0598	4	Screw, Cap - Hex Head GR.8 (7/16-14 x 1-1/2")		154-2499	1	Right Side



# Exhaust System - Industrial



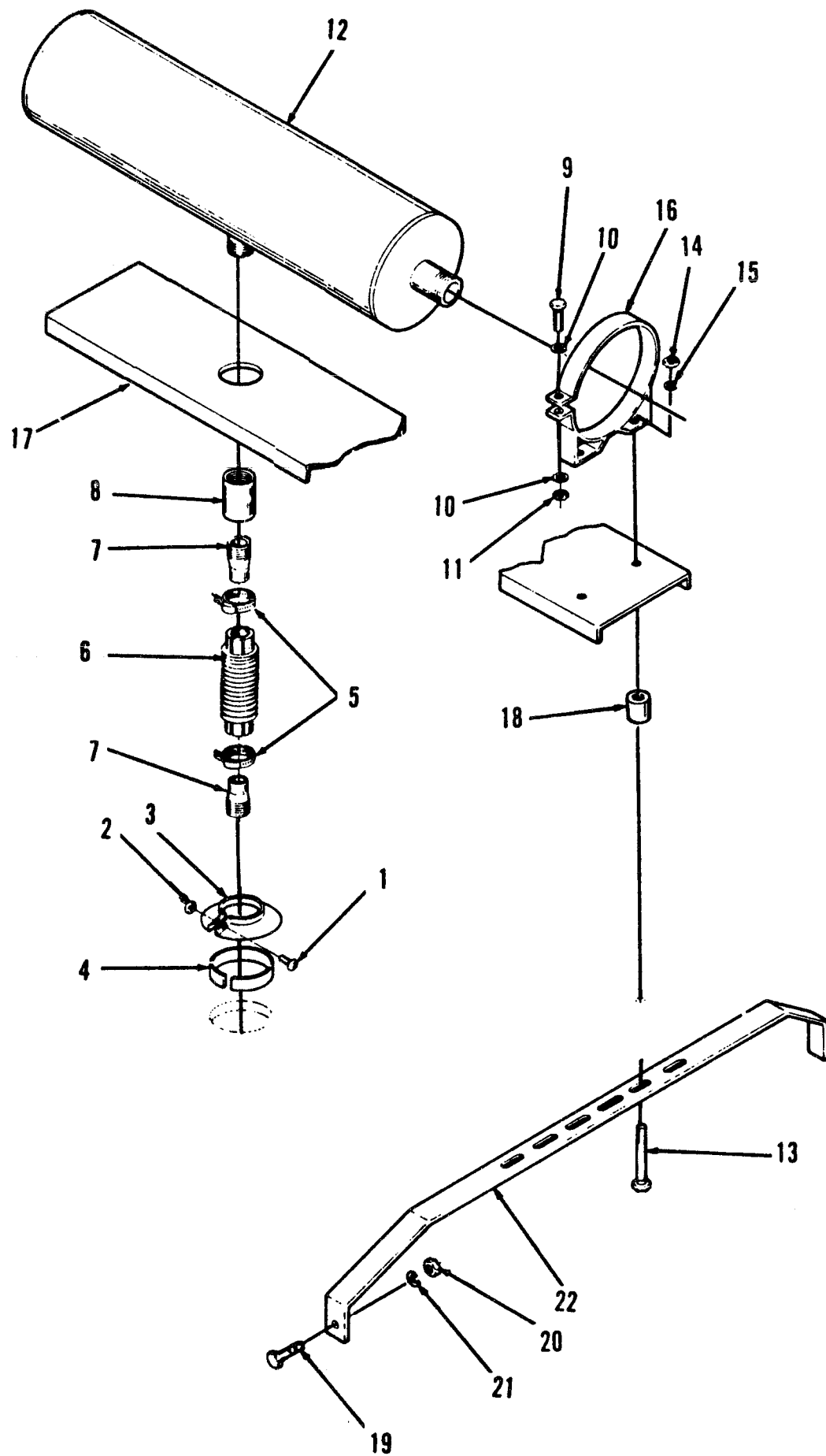


## Exhaust System - Industrial

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0105	2	Screw, Machine - Round Head (#10-32 x 1")	12	155-0989	1	Muffler, Exhaust - Industrial (14"OD x 50" LG)
2	870-0188	2	Nut, Self-Locking - Hex (#10-32)	13	800-0037	4	Screw, Cap - Hex Head (5/16-18 x 3")
3	155-1422	1	Shield, Rain	14	870-0048	4	Nut, Self-Locking - Hex Washer Head (5/16-18)
4	895-0159	1	Strip, Asbestos (2"W x 1/16" THK x 12"LG)	15	850-0045	4	Washer, Lock - Spring (5/16")
5	503-0591	2	Clamp, Hose	16	140-0757	2	Band, Mounting (14"ID)
6	155-1489	1	Tube, Exhaust - Flexible, SST (3" x 9")	17	155-0997	1	Shield, Heat (12"W x 46"LG)
7	155-1463	2	Connector, Tube - Exhaust (3 NPT)	18	155-1430	4	Spacer (1/2"ID x 1-1/2"OD x 2" THK)
8	505-0327	1	Coupling, Pipe (3 NPT)	19	800-0026	4	Screw, Cap - Hex Head (5/16-18 x 3/4")
9	800-0035	2	Screw, Cap - Hex Head (5/16-18 x 2-1/2")	20	870-0048	4	Nut, Self-Locking - Hex Washer Head (5/16-18)
10	526-0113	4	Washer, Flat (11/32"ID x 1"OD x 3/32" THK)	21	850-0045	4	Washer, Lock - Spring (5/16")
11	870-0257	2	Nut, Self-Locking - Hex Washer Head (6/16-18)	22	155-0789	2	Bracket, Support - Muffler Mounting



# Exhaust System - Critical





## Exhaust System - Critical

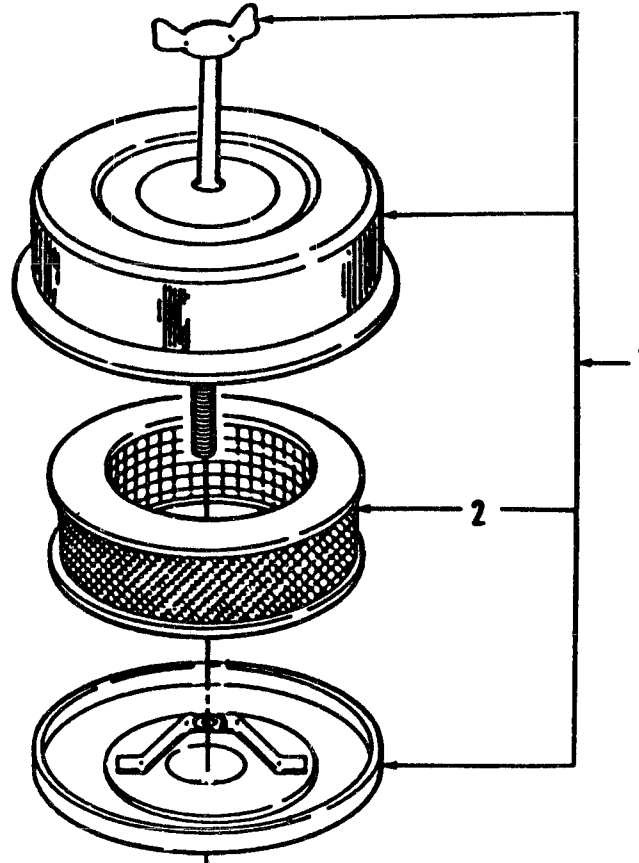
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0105	2	Screw, Machine - Round Head (#10-32 x 1")	12	155-1618	1	Muffler, Exhaust - Critical (14"OD x 62"LG)
2	870-0188	2	Nut, Self-Locking - Hex (#10-32)	13	800-0037	6	Screw, Cap - Hex Head (5/16-18 x 3")
3	155-1422	1	Shield, Rain	14	870-0048	6	Nut, Self-Locking - Hex Washer Head (5/16-18)
4	895-0159	1	Strip, Asbestos (2"W x 1/16"THK x 12"LG)	15	850-0045	6	Washer, Lock - Spring (5/16")
5	503-0354	2	Clamp, Hose	16	140-0757	3	Band, Mounting (14"ID)
6	155-1489	1	Tube, Exhaust - Flexible, SST (3" x 9")	17	155-1663	1	Shield, Heat (12"W x 58"LG)
7	155-1463	2	Connector, Tube - Exhaust (3 NPT)	18	155-1430	6	Spacer (1/2"ID x 1-1/2"OD x 2"THK)
8	505-0327	1	Coupling, Pipe (3 NPT)	19	800-0026	6	Screw, Cap - Hex Head (5/16-18 x 3/4")
9	800-0035	2	Screw, Cap - Hex Head (5/16-18 x 2-1/2")	20	870-0048	6	Nut, Self-Locking - Hex Washer Head (5/16-18)
10	526-0113	4	Washer, Flat (11/32"ID x 1"OD x 3/32"THK)	21	850-0045	6	Washer, Lock - Spring (5/16")
11	870-0257	2	Nut, Self-Locking - Hex Washer Head (6/16-18)	22	155-0789	3	Bracket, Support - Muffler Mounting







# Air Cleaner

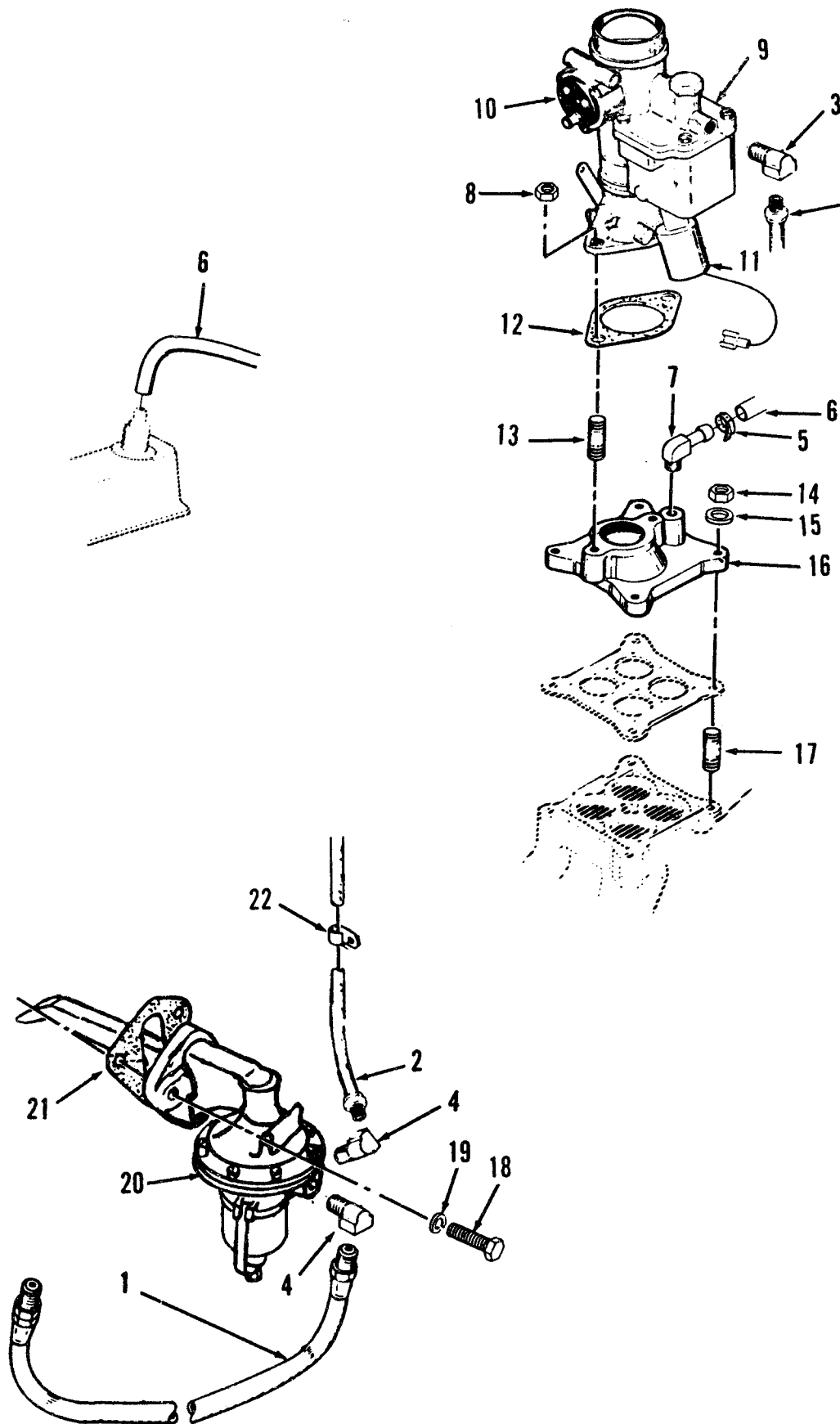


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-1083	1	Cleaner, Air (Includes Element)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
2	140-1089	1	Element, Cleaner - Air



# Fuel System - Gasoline





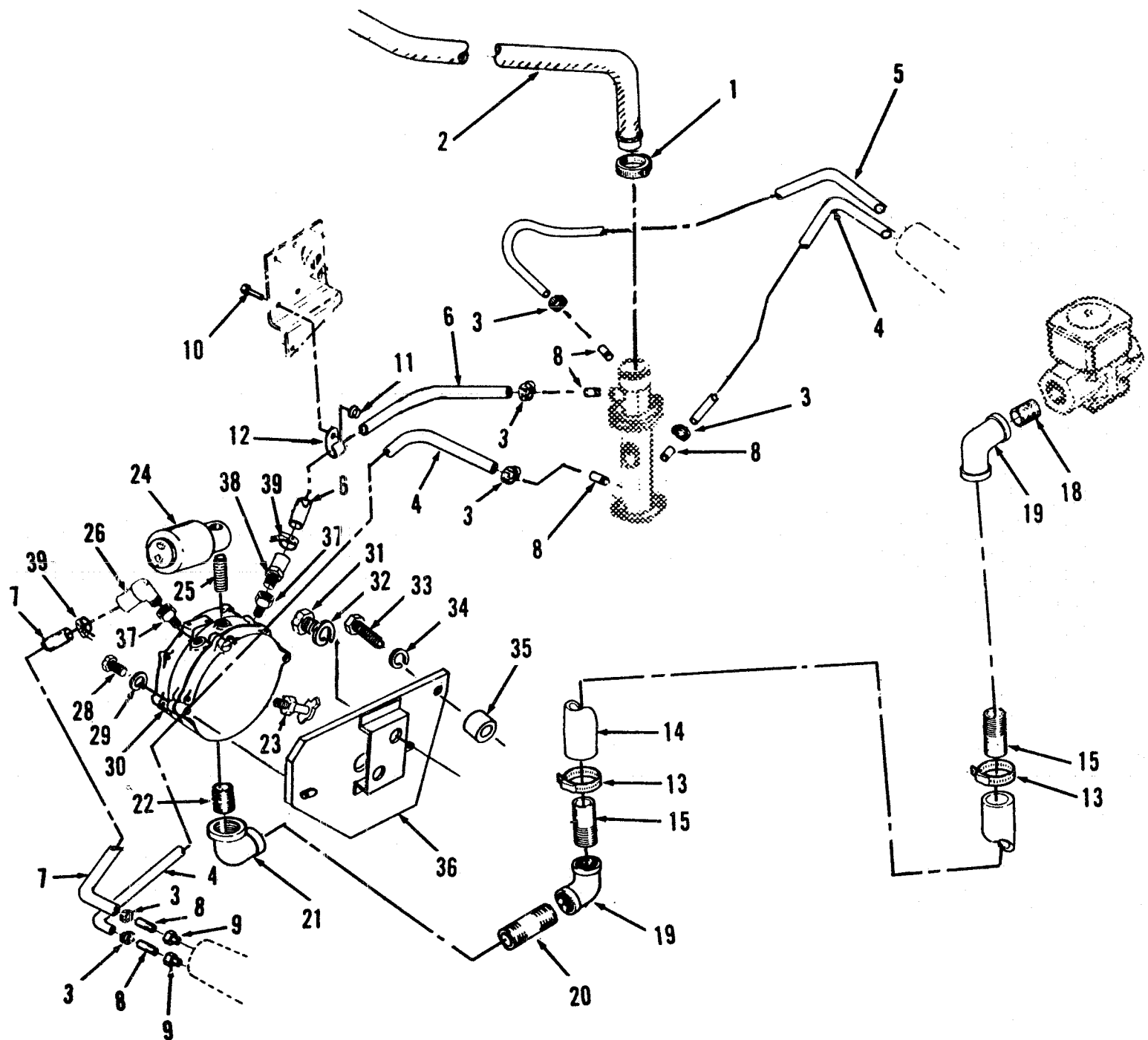
## Fuel System - Gasoline

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0005	1	Line, Fuel - Flexible	12	141-0852	1	*Gasket
2	501-0066	1	Line, Fuel - Flexible	13	520-0311	2	Stud (3/8-16 x 1-5/8"LG)
3	502-0002	1	Elbow, Line - 90° (1/8 NPT x 1/4 Line)	14	110-0445	4	Nut, Hex (5/16-24)
4	502-0041	2	Elbow, Line - 90° (1/4 NPT x 1/4 Line)	15	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)
5	503-0547	1	Clamp, Hose	16	145-0482	1	Adapter, Carburetor
6	503-1100	1	Hose, Rubber (1/2"ID x 23"LG)	17	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8"LG)
7	502-0237	1	Adapter, Pipe to Hose - 90°	18	114-0022	2	Screw, Cap - Hex Head (5/16-18 x 1-3/4")
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	19	850-0045	2	Washer, Lock - Spring (5/16")
9	141-0902	1	Carburetor, Gasoline (Includes Parts Marked *)	20	149-1437	1	Pump, Fuel
10	141-0911	1	*Cover, Choke with Heater - 12 VDC	21	149-1436	1	Gasket
11	141-0850	1	*Solenoid, Fuel Cutoff - 12 VDC	22	332-1554	1	Clamp, Loop

\* - Parts included with Carburetor.



# **Gas Conversion System (LPG Liquid to Vapor)**



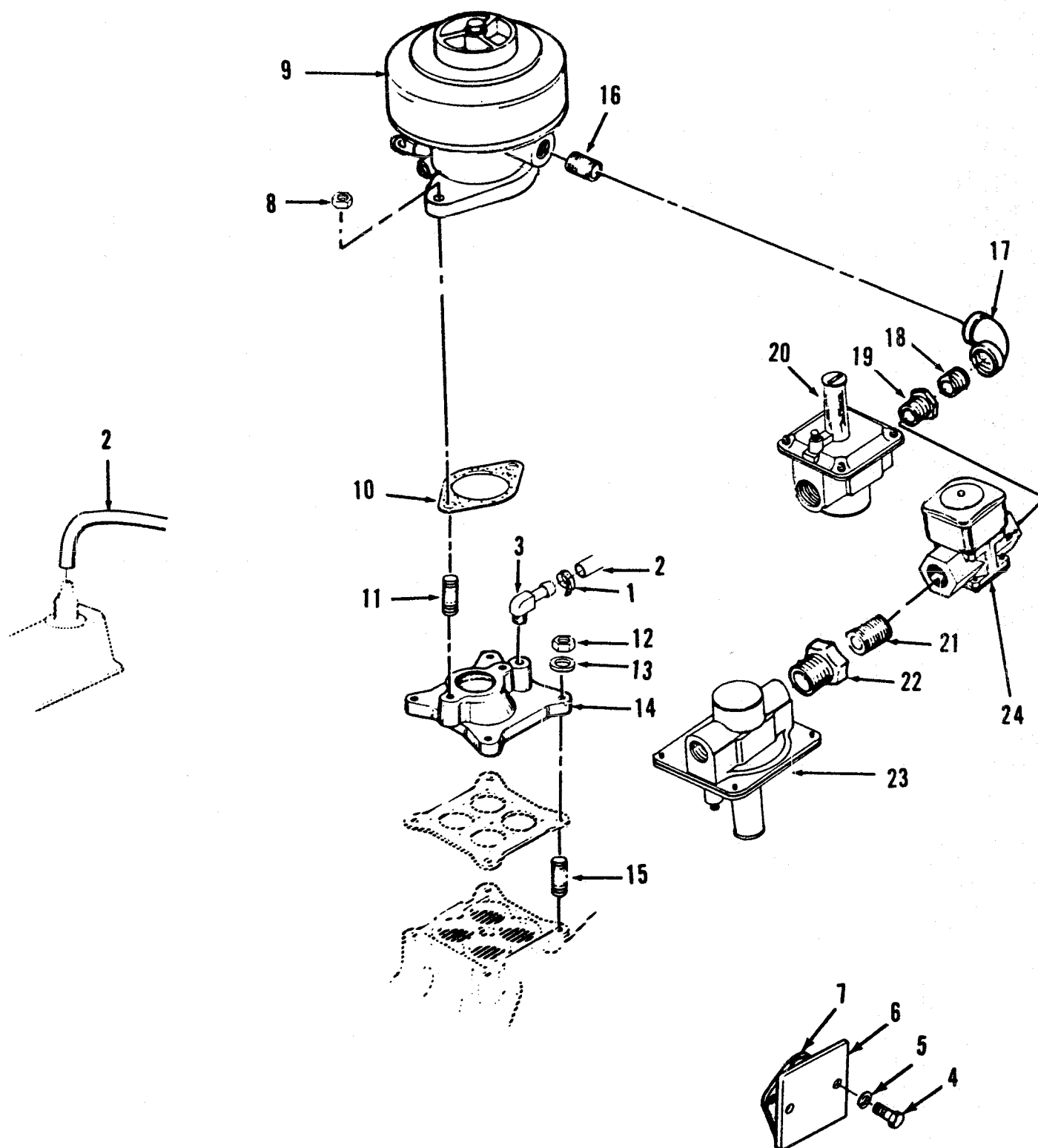


# Gas Conversion System (LPG Liquid to Vapor)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0274	1	Clamp, Hose	21	505-0356	1	Elbow, Pipe - Reducing (1 NPT x 3/4 NPT)
2	503-0753	1	Hose, Radiator - Upper	22	505-0004	1	Nipple, Pipe (1 NPT x 1-1/2")
3	503-0183	6	Clamp, Hose	23	504-0005	1	Cock, Drain (1/8 NPT)
4	503-0386	2	Hose, Rubber (5/8"ID x 23"LG)	24	307-0268	1	Valve, Solenoid - 12 VDC (1/4 NPT)
5	503-0386	1	Hose, Rubber (5/8"ID x 28"LG)	25	505-0099	1	Nipple, Pipe (1/4 NPT x 7/8")
6	503-1467-06	1	Hose, Rubber (3/4"ID x 19"LG)	26	502-1030	1	Connector, Hose - 90° x 1/2 NPT)
7	503-1467-07	1	Hose, Rubber (3/4"ID x 8-1/2"LG)	28	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2")
8	505-0135	8	Nipple, Pipe - Half (3/8 NPT x 1-1/2")	29	850-0040	2	Washer, Lock - Spring (1/4")
9	505-0019	4	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	30	148-0625	1	Converter, Gas - LPG
10	800-0051	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")	31	800-0069	2	Screw, Cap - Hex Head (7/8-14 x 3/4")
11	870-0133	1	Nut, Self-Locking - Hex Washer Head (3/8-16)	32	850-0055	2	Washer, Lock - Spring (7/8")
12	148-0274	2	Clamp, Loop	33	800-0051	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
13	503-0398	2	Clamp, Hose	34	850-0050	1	Washer, Lock - Spring (3/8")
14	503-0799	1	Hose, Rubber (1"ID x 1-3/8"OD x 30"LG)	35	191-0864	2	Spacer, Mounting - Starter
15	505-0324	2	Nipple, Pipe - Half (3/4 NPT x 2")	36	148-0773	1	Bracket, Mounting - Converter
18	505-0102	1	Nipple, Pipe (3/4 NPT x 1-3/8")	37	502-0270	2	Adapter, Pipe (3/8 NPT x 1/2 NPT)
19	505-0132	2	Elbow, Pipe - 90° (3/4 NPT)	38	502-1031	1	Connector, Hose (1/2 NPT)
20	505-0084	2	Nipple, Pipe (3/4 NPT x 2-1/2")	39	503-0382	4	Clamp, Hose (1/2 NPT)



# Gaseous Fuel Systems



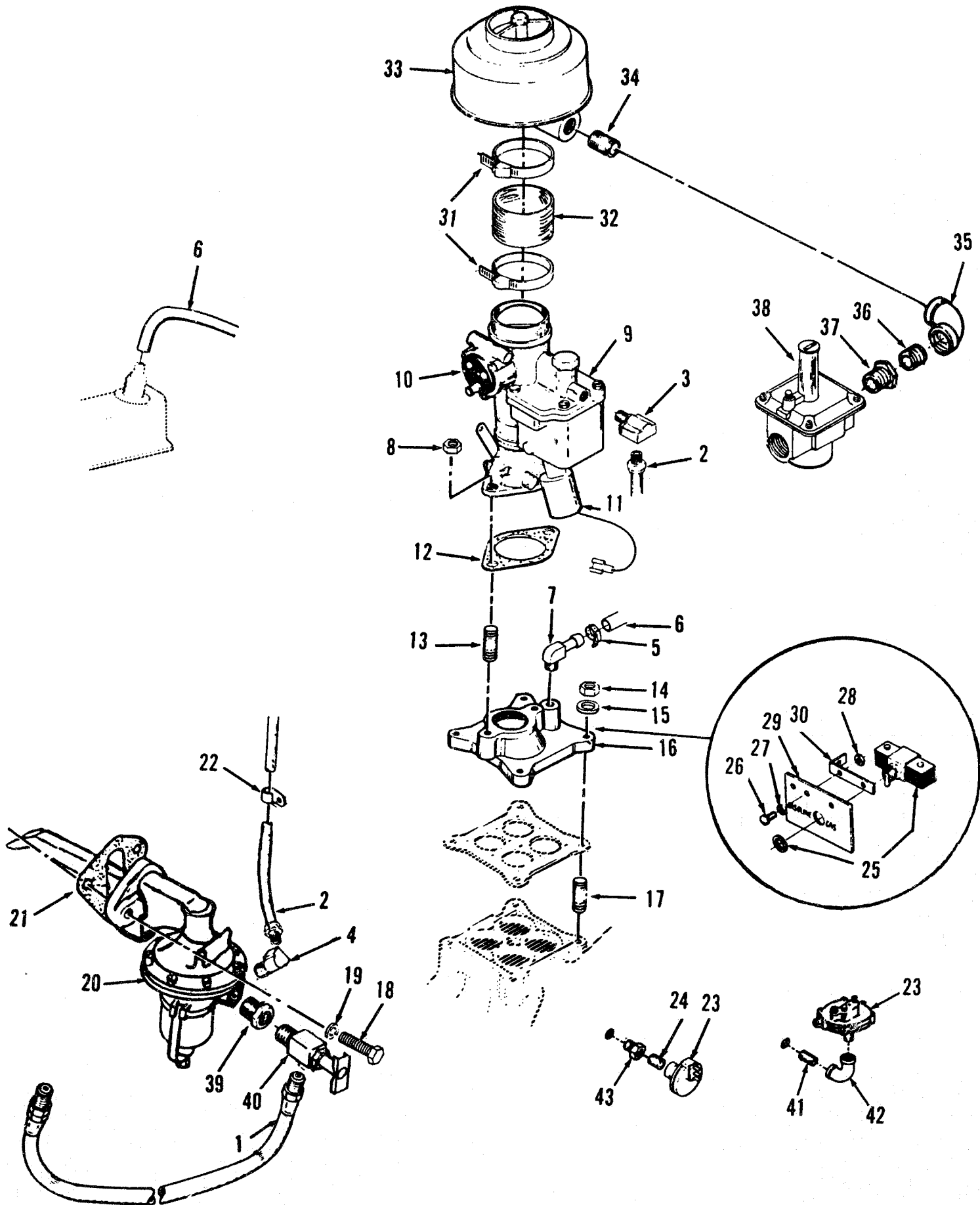


## Gaseous Fuel Systems

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0547	1	Clamp, Hose	16	505-0106	1	Nipple, Pipe (1/2 NPT x 1-1/2"LG)
2	503-1100	1	Hose, Rubber (1/2"ID x 23"LG)	17	505-0040	1	Elbow, Pipe - 90° (1/2 NPT)
3	502-0237	1	Adapter, Pipe to Hose - 90°	18	505-0106	1	Nipple, Pipe (1/2 NPT x 1/2"LG)
4	800-0025	2	Screw, Cap - Hex Head (5/16-18 x 5/8")	19	505-0021	1	Bushing, Reducer (3/4 NPT x 1/2 NPT)
5	850-0045	2	Washer, Lock - Spring (5/16")	20	148-0601	1	Regulator, Pressure - Gas (3/4 NPT) Nat Gas System
6	149-0638	1	Plate, Cover - Fuel Pump Mounting Hole	21	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8") LPG System
7	149-1436	1	Gasket	22	505-0129	1	Bushing, Reducer - Hex (1 NPT x 3/4 NPT) LPT System
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	23	148-0636	1	Regulator, Pressure - Gas (1 NPT) LPG System
9	148-0763	1	Carburetor, Gas Vapor	24	307-0834	1	Valve, Solenoid - 3/4 NPT (12 VDC) LPG System
10	141-0852	1	Gasket				
11	520-0311	2	Stud (3/8-16 x 1-5/8"LG)				
12	110-0445	4	Nut, Hex (5/16-24)				
13	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)				
14	145-0482	1	Adapter, Carburetor				
15	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8"LG)				



# **Dual Fuel System Gasoline/Natural Gas**





# **Dual Fuel System Gasoline/Natural Gas**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0005	1	Line, Fuel - Flexible	25	308-0005	1	Switch, Toggle
2	501-0066	1	Line, Fuel - Flexible	26	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")
3	502-0002	1	Elbow, Line - 90° (1/8 NPT x 1/4 NPT Line)	27	850-0030	2	Washer, Lock - Spring (#10)
4	502-0041	1	Elbow, Line - 90° (1/4 NPT x 1/4 NPT Line)	28	871-0010	2	Nut, Hex (#10-32)
5	503-0547	1	Clamp, Hose	29	308-0150	1	Plate, Mounting - Switch
6	503-1100	1	Hose, Rubber (1/2"ID x 23"LG)	30	306-0155	1	Bracket, Mounting
7	502-0237	1	Adapter, Pipe to Hose - 90°	31	503-0999	2	Clamp, Hose
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	32	503-0542	1	Hose, Adapter (1-1/4"ID x 2-1/4"LG)
9	141-0902	1	Carburetor, Gasoline (Includes Parts Marked *)	33	148-0764	1	Mixer, Gas
10	141-0911	1	*Cover, Choke with Heater - 12 VDC	34	505-0106	1	Nipple, Pipe (1/2 NPT x 1-1/2"LG)
11	141-0850	1	*Solenoid, Fuel Cutoff - 12 VDC	35	505-0040	1	Elbow, Pipe - 90° (1/2 NPT)
12	141-0852	1	*Gasket	36	505-0100	1	Nipple, Pipe (1/2 NPT x 1-1/8"LG)
13	520-0311	2	Stud (3/8-16 x 1-5/8"LG)	37	505-0021	1	Bushing, Reducer (3/4 NPT x 1/2 NPT)
14	110-0445	4	Nut, Hex (5/16-24)	38	148-0597	1	Regulator, Pressure - Gas (Nat. Gas) (3/4 NPT)
15	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)	39	502-0029	1	Adapter, Fuel Line
16	145-0482	1	Adapter, Carburetor	40	504-0007	1	Valve, Shutoff (1/8 NPT)
17	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8"LG)	41	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1")
18	114-0022	2	Screw, Cap - Hex Head (5/16-18 x 1-3/4")	42	505-0039	1	#Elbow, Pipe - 90° (3/8 NPT)
19	850-0045	2	Washer, Lock - Spring (5/16")	43	505-0007	1	+Bushing, Reducer (1/4 NPT x 1/8 NPT)
20	149-1437	1	Pump, Fuel				
21	149-1436	1	Gasket				
22	332-1554	1	Clamp, Loop				
23	148-0367	1	Switch, Control - Vacuum (12 VDC)				
24	505-0098	1	+Nipple, Pipe - Close (1/8 NPT x 3/4" LG)				

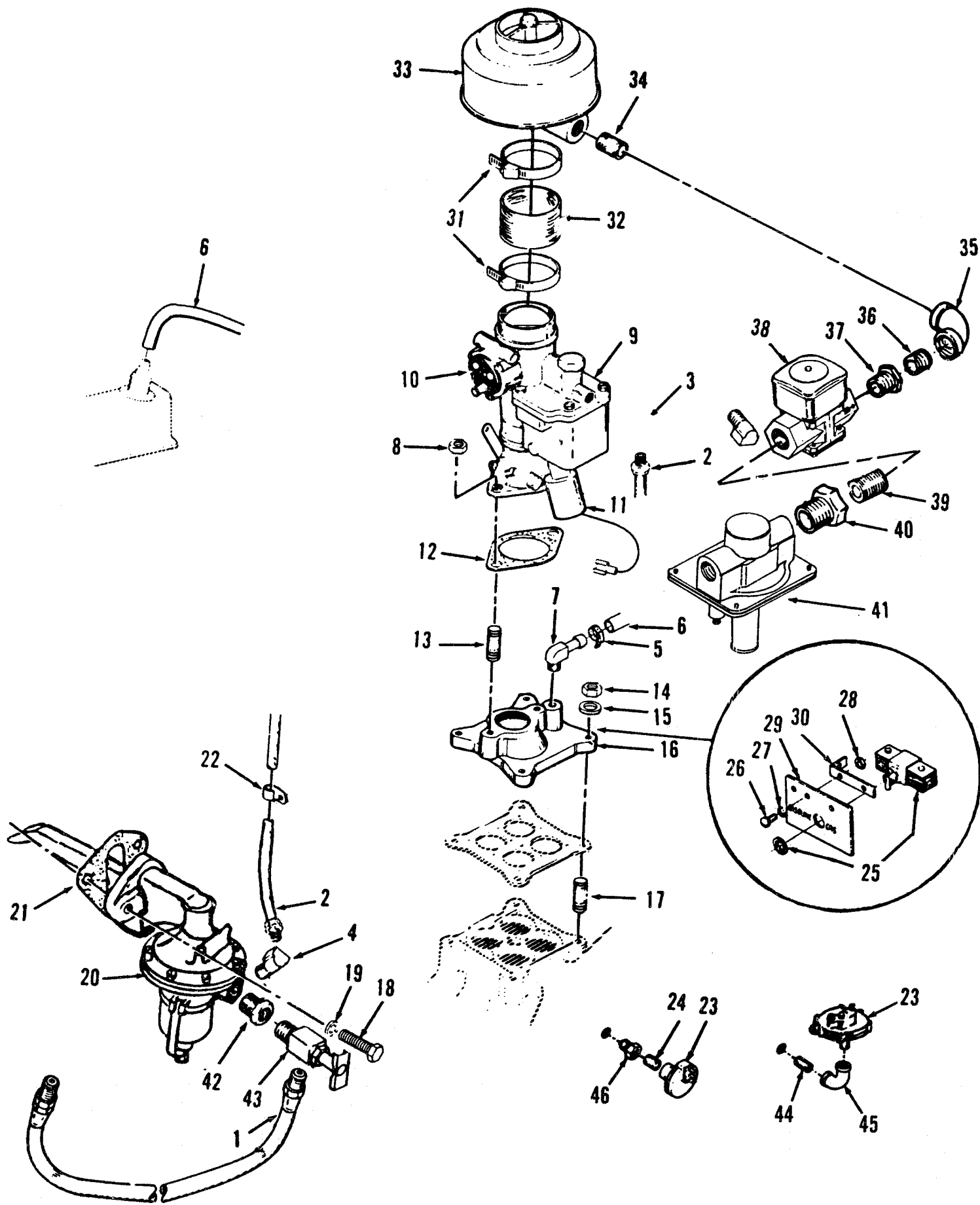
\* - Parts included with Carburetor.

# - Use begin 4-88 for Vertical Mounting of Vacuum Switch.

+ - Not used after 4-88.



# Dual Fuel System Gasoline/LPG Vapor





# Dual Fuel System Gasoline/LPG Vapor

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0005	1	Line, Fuel - Flexible	27	850-0030	2	Washer, Lock - Spring (#10)
2	501-0066	1	Line, Fuel - Flexible	28	871-0010	2	Nut, Hex (#10-32)
3	502-0002	1	Elbow, Line - 90° (1/8 NPT x 1/4 NPT Line)	29	308-0150	1	Plate, Mounting - Switch
4	502-0041	1	Elbow, Line - 90° (1/4 NPT x 1/4 NPT Line)	30	306-0155	1	Bracket, Mounting
5	503-0547	1	Clamp, Hose	31	503-0465	2	Clamp, Hose
6	503-1100	1	Hose, Rubber (1/2"ID x 23"LG)	32	503-0542	1	Hose, Rubber (1-1/4"ID x 2-1/4"LG)
7	502-0237	1	Adapter, Pipe to Hose - 90°	33	148-0764	1	Mixer, Gas
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	34	505-0106	1	Nipple, Pipe (1/2 NPT x 1-1/2"LG)
9	141-0841	1	Carburetor, Gasoline (Includes Parts Marked *)	35	505-0040	1	Elbow, Pipe - 90° (1/2 NPT)
10	141-0911	1	*Cover, Choke with Heater - 12 VDC	36	505-0100	1	Nipple, Pipe (1/2 NPT x 1-1/8"LG)
11	141-0850	1	*Solenoid, Fuel Cutoff - 12 VDC	37	505-0021	1	Bushing, Reducer (3/4 NPT x 1/2 NPT)
12	141-0852	1	*Gasket	38	307-0312	1	Valve, Solenoid - 3/4 NPT (12 VDC)
13	520-0311	2	Stud (3/8-16 x 1-5/8"LG)	39	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)
14	110-0445	4	Nut, Hex (5/16-24)	40	505-0129	1	Bushing, Reducer (1 NPT x 3/4 NPT)
15	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)	41	148-0636	1	Regulator, Pressure - Gas (LPG Vapor) 1 NPT
16	145-0482	1	Adapter, Carburetor	42	502-0029	1	Bushing, Reducer - Brass (1/4 NPT x 1/8 NPT)
17	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8"LG)	43	504-0007	1	Valve, Shutoff (1/8 NPT)
18	114-0022	2	Screw, Cap - Hex Head (5/16-18 x 1-3/4")	44	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1")
19	850-0045	2	Washer, Lock - Spring (5/16")	45	505-0039	1	#Elbow, Pipe - 90° (3/8 NPT)
20	149-1437	1	Pump, Fuel	46	505-0007	1	+Bushing, Reducer (1/4 NPT x 1/8 NPT)
21	149-1436	1	Gasket				
22	332-1554	1	Clamp, Loop				
23	148-0367	1	Switch, Control - Vacuum (12 VDC)				
24	505-0098	1	+Nipple, Pipe Close (1/8 NPT x 3/4"LG)				
25	308-0005	1	Switch, Toggle				
26	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")				

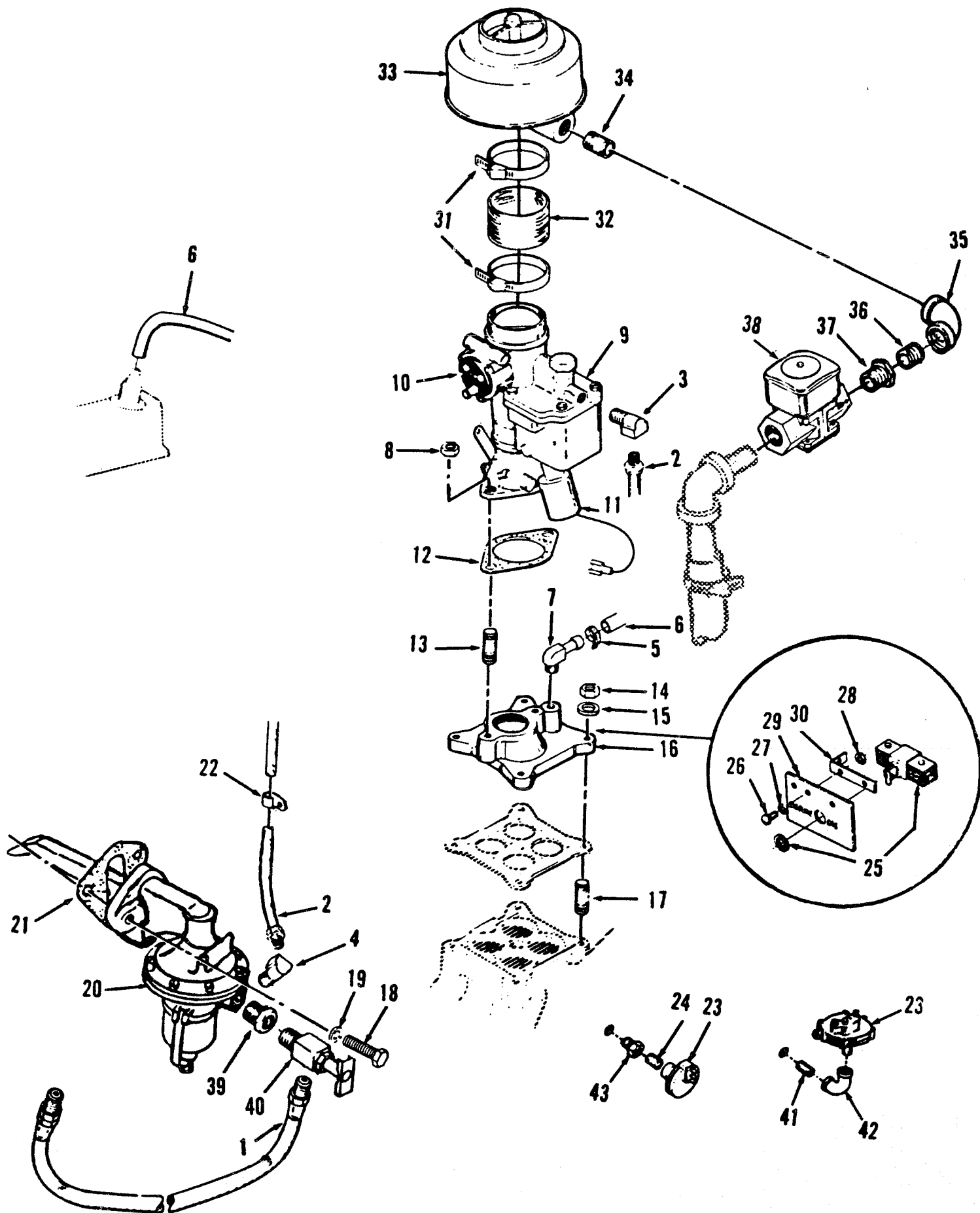
\* - Parts included with Carburetor.

# - Use begin 4-88 for Vertical Mounting of Vacuum Switch.

+ - Not used after 4-88.



# Dual Fuel System Gasoline/LPG Liquid





# Dual Fuel System Gasoline/LPG Liquid

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0005	1	Line, Fuel - Flexible	25	308-0005	1	Switch, Toggle
2	501-0008	1	Line, Fuel - Flexible	26	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")
3	502-0002	1	Elbow, Line - 90° (1/8 NPT x 1/4 NPT Line)	27	850-0030	2	Washer, Lock - Spring (#10)
4	502-0041	1	Elbow, Line - 90° (1/4 NPT x 1/4 NPT Line)	28	871-0010	2	Nut, Hex (#10-32)
5	503-0547	1	Clamp, Hose	29	308-0150	1	Plate, Mounting - Switch
6	503-1100	1	Hose, Rubber (1/2" ID x 23" LG)	30	306-0155	1	Bracket, Mounting
7	502-0237	1	Adapter, Pipe to Hose - 90°	31	503-0465	2	Clamp, Hose
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	32	503-0542	1	Hose, Rubber (1-1/4" ID x 2-1/4" LG)
9	141-0902	1	Carburetor, Gasoline (Includes Parts Marked *)	33	148-0764	1	Mixer, Gas
10	141-0911	1	*Cover, Choke with Heater - 12 VDC	34	505-0106	1	Nipple, Pipe (1/2 NPT x 1-1/2" LG)
11	141-0850	1	*Solenoid, Fuel Cutoff - 12 VDC	35	505-0040	1	Elbow, Pipe - 90° (1/2 NPT)
12	141-0852	1	*Gasket	36	505-0106	1	Nipple, Pipe (1/2 NPT x 1-1/2" LG)
13	520-0311	2	Stud (3/8-16 x 1-5/8" LG)	37	505-0021	1	Bushing, Reducer (3/4 NPT x 1/2 NPT)
14	110-0445	4	Nut, Hex (5/16-24)	38	307-0312	1	Valve, Solenoid - 3/4 NPT (12 VDC)
15	526-0065	4	Washer, Flat (21/64" ID x 9/16" OD x 1/16" THK)	39	502-0029	1	Bushing, Reducer - Brass (1/4 NPT x 1/8 NPT)
16	145-0482	1	Adapter, Carburetor	40	504-0007	1	Valve, Shutoff (1/8 NPT)
17	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-7/8" LG)	41	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1")
18	114-0022	2	Screw, Cap - Hex Head (5/16-18 x 1-3/4")	42	505-0039	1	#Elbow, Pipe - 90° (3/8 NPT)
19	850-0045	2	Washer, Lock - Spring (5/16")	43	505-0007	1	+Bushing, Reducer (1/4 NPT x 1/8 NPT)
20	149-1437	1	Pump, Fuel				
21	149-1436	1	Gasket				
22	332-1554	1	Clamp, Loop				
23	148-0367	1	Switch, Control - Vacuum (12 VDC)				
24	505-0098	1	+Nipple, Pipe Close (1/8 NPT x 3/4" LG)				

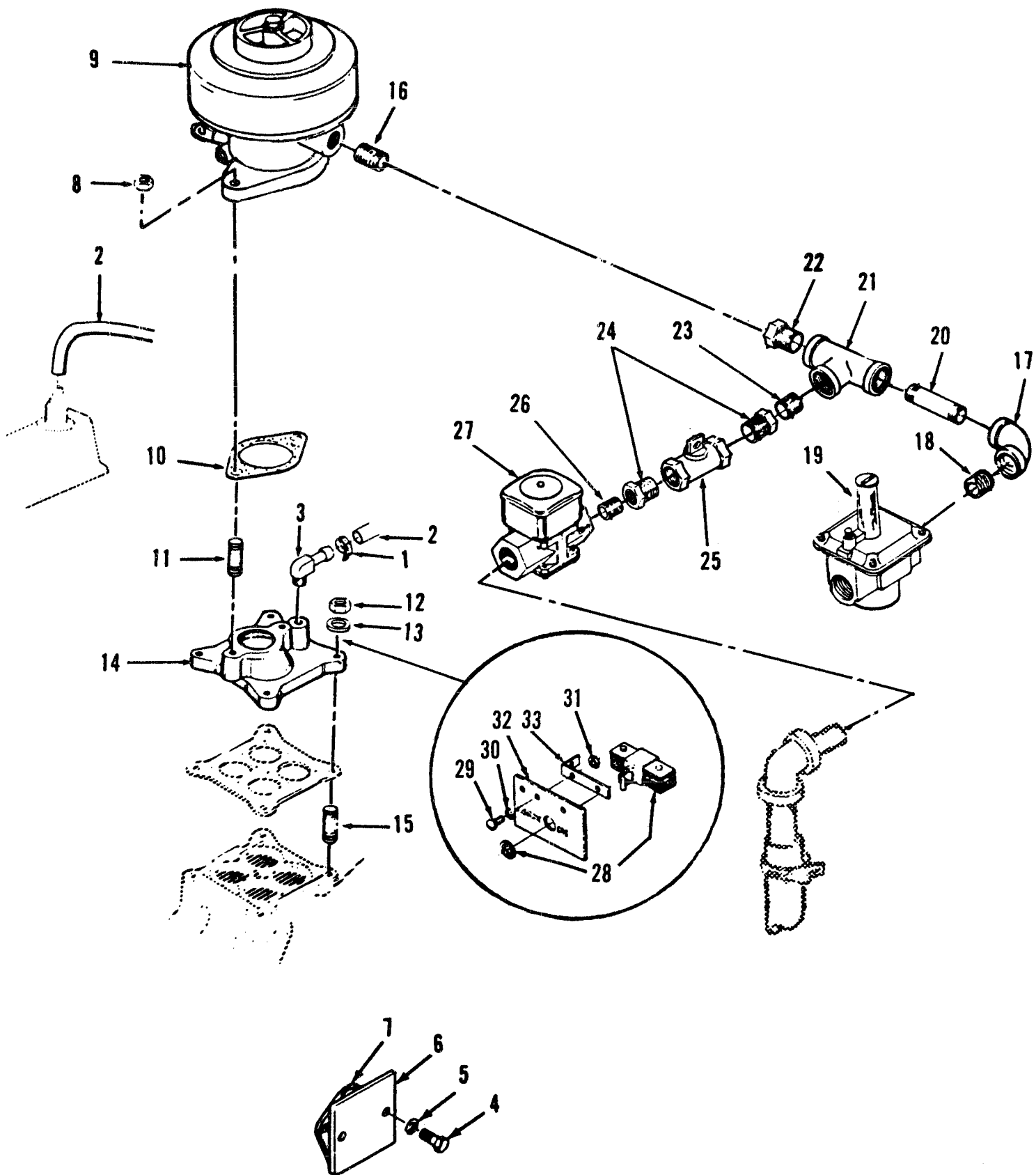
\* - Parts included with Carburetor.

# - Use begin 4-88 for Vertical Mounting of Vacuum Switch.

+ - Not used after 4-88.



**Dual Fuel System  
LPG and Natural Gas  
(Manual Changeover)**



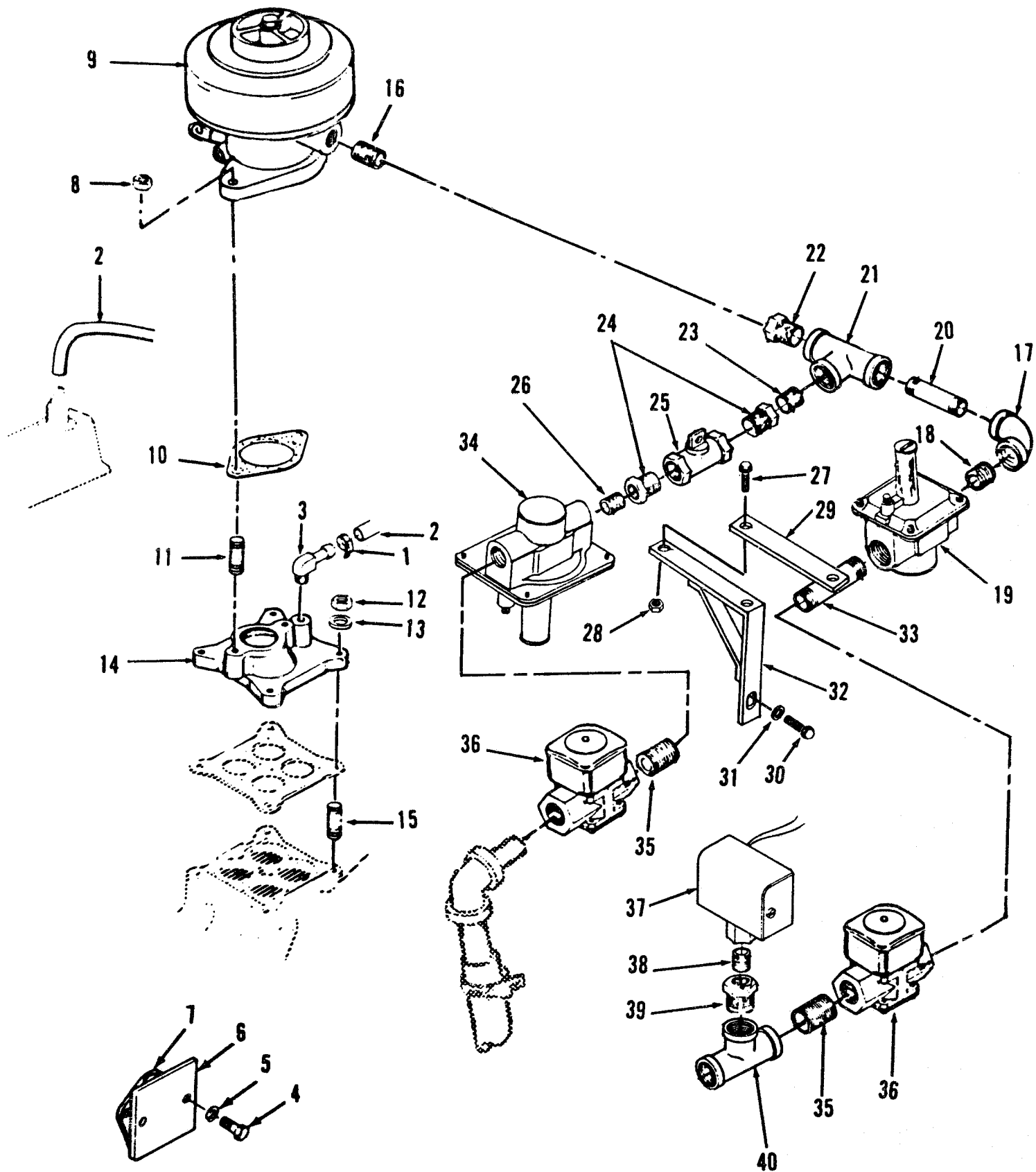


**Dual Fuel System  
LPG and Natural Gas  
(Manual Changeover)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0547	1	Clamp, Hose	19	148-0601	1	Regulator, Pressure - Gas
2	503-1100	1	Hose, Rubber (1/2"ID x 23"LG)				(Nat Gas) 3/4 NPT
3	502-0237	1	Adapter, Pipe to Hose - 90°	20	505-0084	1	Nipple, Pipe (3/4 NPT x
4	800-0025	2	Screw, Cap - Hex Head				2-1/2"LG)
			(5/16-18 x 5/8")	21	505-0166	1	Tee, Pipe (3/4 NPT)
5	850-0045	2	Washer, Lock - Spring (5/16")	22	505-0021	1	Bushing, Reducer (3/4 NPT x
6	149-0638	1	Plate, Cover - Fuel Pump				1/2 NPT)
			Mounting Hole	23	505-0102	1	Nipple, Pipe (3/4 NPT x
7	149-1436	1	Gasket				1-3/8"LG)
8	870-0281	2	Nut, Self-Locking - Hex	24	505-0129	2	Bushing, Reducer (1 NPT x
			Washer Head (3/8-16)				3/4 NPT)
9	148-0763	1	Carburetor, Gas Vapor	25	148-0626	1	Valve, Control - Manual
10	141-0852	1	Gasket	26	505-0085	1	Nipple, Pipe (3/4 NPT x 2"LG)
11	520-0311	2	Stud (3/8-16 x 1-5/8"LG)	27	307-0834	1	Valve, Solenoid - 3/4 NPT
12	110-0445	4	Nut, Hex (5/16-24)				(12 VDC)
13	526-0065	4	Washer, Flat (21/64"ID x	28	308-0005	1	Switch, Toggle
			9/16"OD x 1/16"THK)	29	813-0100	2	Screw, Machine - Round Head
14	145-0482	1	Adapter, Carburetor				(#10-32 x 1/2")
15	520-0011	4	Stud (5/16-18 x 5/16-24 x	30	850-0030	2	Washer, Lock - Spring (#10)
			1-7/8"LG)	31	871-0010	2	Nut, Hex (#10-32)
16	505-0100	1	Nipple, Pipe (1/2 NPT x	32	308-0150	1	Plate, Mounting - Switch
			1-1/8"LG)	33	306-0155	1	Bracket, Mounting
17	505-0132	1	Elbow, Pipe - 90° (3/4 NPT)				
18	505-0102	1	Nipple, Pipe (3/4 NPT x				
			1-3/8"LG)				



**Dual Fuel System  
LPG and Natural Gas  
(Automatic Changeover)**



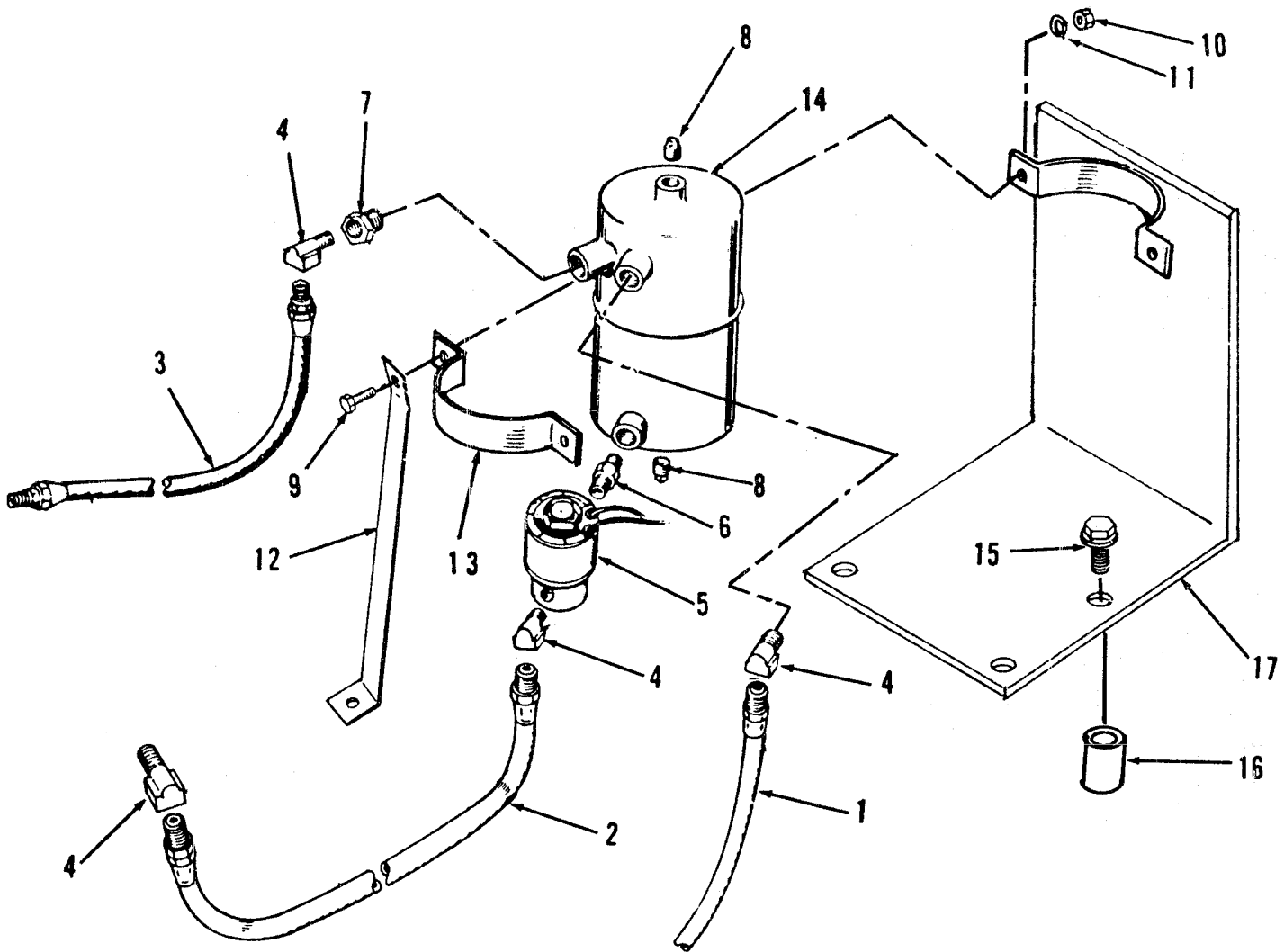


**Dual Fuel System  
LPG and Natural Gas  
(Automatic Changeover)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0547	1	Clamp, Hose	22	505-0021	1	Bushing, Reducer (3/4 NPT x
2	503-1100	1	Hose, Rubber (1/2"ID x 23"LG)	23	505-0102	1	Nipple, Pipe (3/4 NPT x
3	502-0237	1	Adapter, Pipe to Hose - 90°				1-3/8"LG)
4	800-0025	2	Screw, Cap - Hex Head (5/16-18 x 5/8")	24	505-0129	2	Bushing, Reducer (1 NPT x
5	850-0045	2	Washer, Lock - Spring (5/16")	25	148-0626	1	Valve, Control - Manual
6	149-0638	1	Plate, Cover - Fuel Pump Mounting Hole	26	505-0085	1	Nipple, Pipe (3/4 NPT x
7	149-1436	1	Gasket	27	800-0009	2	Screw, Cap - Hex Head
8	870-0281	2	Nut, Self-Locking - Hex Washer Head (3/8-16)	28	870-0218	2	Nut, Self-Locking - Hex
9	148-0763	1	Carburetor, Gas Vapor				(1/4-20)
10	141-0852	1	Gasket	29	148-0784	1	Strap
11	520-0311	2	Stud (3/8-16 x 1-5/8"LG)	30	821-0029	1	Screw, Self-Locking - Hex
12	110-0445	4	Nut, Hex (5/16-24)				Washer Head (3/8-16 x 3/4")
13	526-0065	4	Washer, Flat (21/64"ID x 9/16"OD x 1/16"THK)	31	526-0013	1	Washer, Flat (3/8")
14	145-0482	1	Adapter, Carburetor	32	148-0787	1	Brace, Support
15	520-0011	4	Stud (5/16-18 x 5/16-24 x 1-1/8"LG)	33	505-0332	1	Nipple, Pipe (3/4 NPT x 3"LG)
16	505-0100	1	Nipple, Pipe (3/4 NPT x 1-1/8"LG)	34	148-0637	1	Regulator, Pressure - Gas (LPG Gas) 3/4 NPT
17	505-0132	1	Elbow, Pipe - 90° (3/4 NPT)	35	505-0102	2	Nipple, Pipe (3/4 NPT x
18	505-0102	1	Nipple, Pipe (3/4 NPT x 1-3/8"LG)	36	307-0312	2	Valve, Solenoid - 3/4 NPT (12 VDC)
19	148-0597	1	Regulator, Pressure - Gas (Nat Gas) 3/4 NPT	37	148-0627	1	Switch, Pressure - 12 VDC
20	505-0084	1	Nipple, Pipe (3/4 NPT x 2-1/2"LG)	38	505-0099	1	Nipple, Pipe - Close (1/4 NPT x 7/8"LG)
21	505-0166	1	Tee, Pipe (3/4 NPT)	39	505-0020	1	Bushing, Reducer (3/4 NPT x
				40	505-0166	1	Tee, Pipe (3/4 NPT)



# Fuel Reservoir (Day Tank)



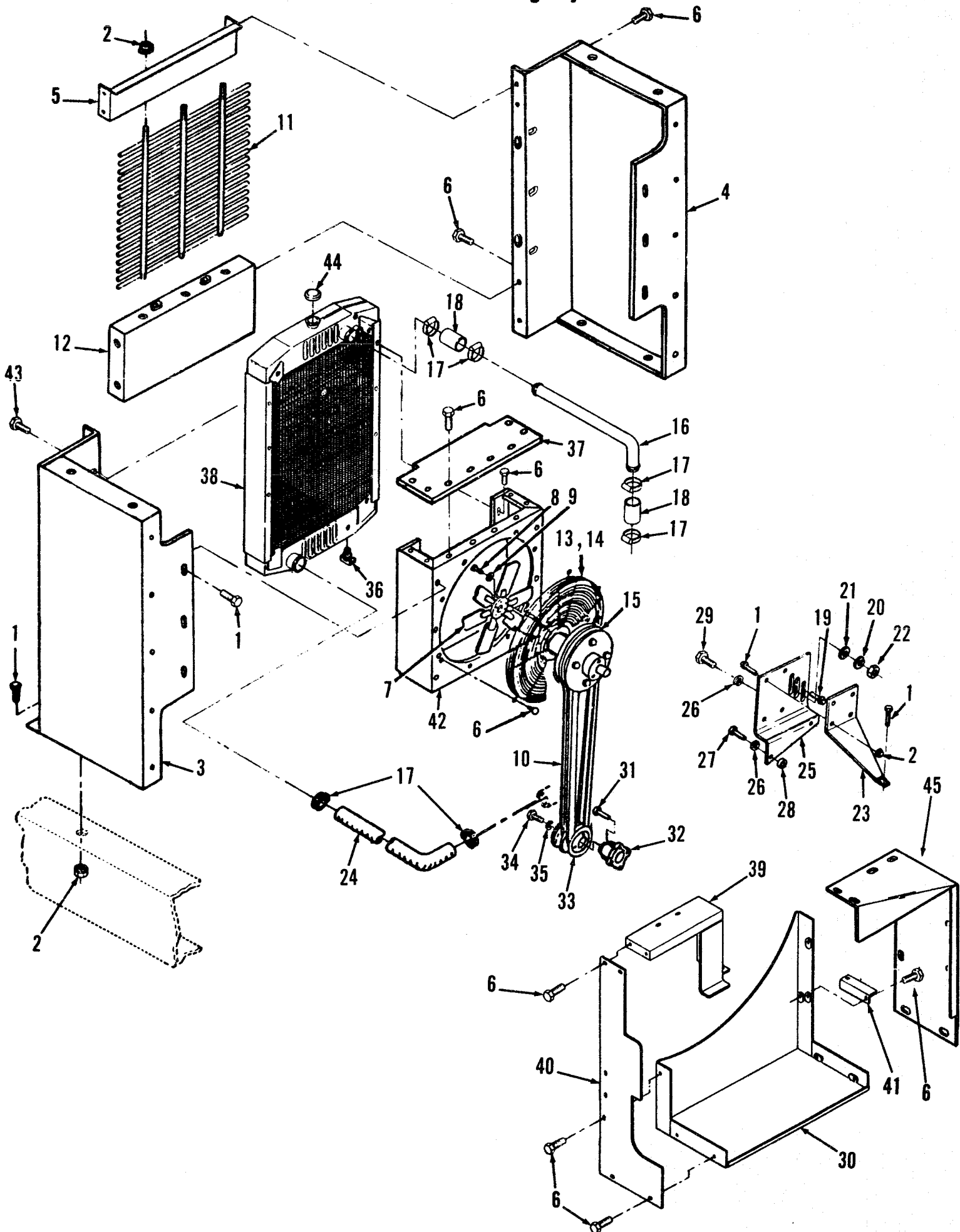
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0010	1	Line, Fuel - Flexible (Incoming)	9	821-0011	2	Screw, Self-Locking - Hex Washer Head (1/4-20 x 7/8")
2	501-0003	1	Line, Fuel - Flexible (Tank to Carb)	10	870-0212	2	Nut, Self-Locking - Hex Washer Head (1/4-20)
3	501-0011	1	Line, Fuel - Flexible (Overflow Return)	11	850-0040	2	Washer, Lock - Spring (1/4")
4	502-0002	4	Elbow, Pipe - 90°, Brass (1/4 SAE x 1/8 NPT)	12	159-1037	2	Brace
5	307-0565	1	Valve, Solenoid - 12 VDC (1/8 NPT)	13	159-0253	1	Clamp, Mounting - Tank
6	502-0082	1	Nipple, Pipe - Hex (1/8 NPT)	14	159-0294	1	Tank, Fuel Reservoir
7	159-0705	1	Bushing, Reducer with Restrictor - Hex (3/8 NPT x 1/8 NPT)	15	821-0023	1	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1-1/2")
8	505-0057	2	Plug, Pipe - Square Head (1/8 NPT)	16	159-1039	1	Spacer, Sleeve
				17	159-1038	1	Bracket, Mounting - Tank







# Radiator Cooling System





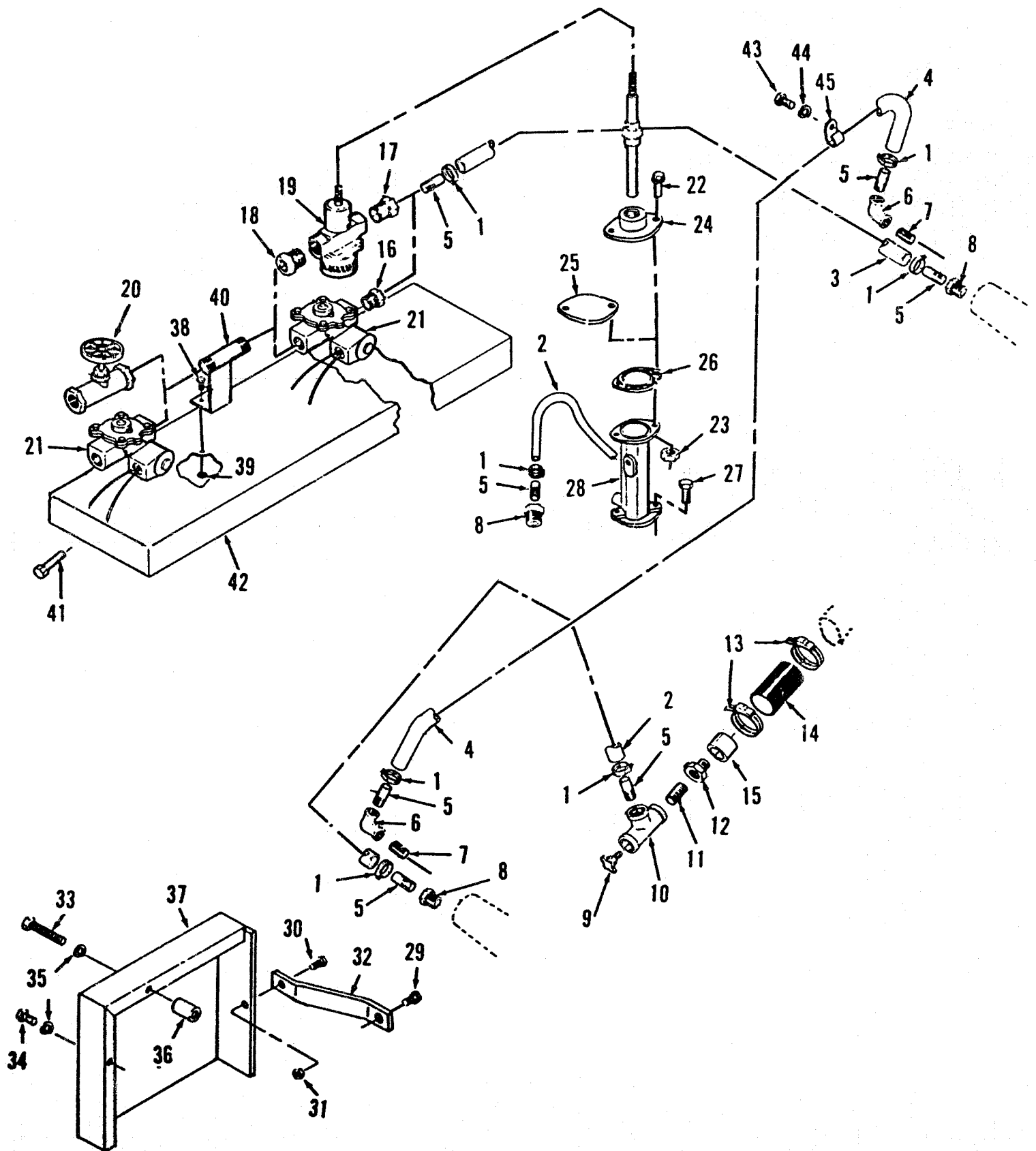
# Radiator Cooling System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0029	15	Screw, Cap - Hex Head (3/8-16 x 3/4")	21	526-0035	1	Washer, Flat (1/2)
2	870-0281	15	Nut, Self-Locking - Hex Washer Head (3/8-16)	22	862-0016	1	Nut, Hex (1/2-13)
3	130-3038-01	1	Guard, Radiator (Right Hand)	23	130-0973	1	Brace, Bracket - Fan Drive
4	130-3038-02	1	Guard, Radiator (Left Hand)	24	503-1558	1	Hose, Radiator - Lower
5	130-3039	1	Support, Grille	25	130-0971	1	Bracket, Drive - Fan
6	821-0018	44	Screw, Cap - Hex Head (1/4-20 x 5/8")	26	850-0050	2	Washer, Lock - Spring (3/8)
7	130-0428	1	Fan, Radiator	27	800-0051	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
8	800-0028	4	Screw, Cap - Hex Head (5/16-18 x 1")	28	191-0864	1	Spacer
9	850-0045	4	Washer, Lock - Spring (5/16)	29	800-0050	1	Screw, Cap - Hex Head (3/8-16 x 1")
10	511-0153	1	Belt, Vee (Matched Set)	30	130-3133	1	Guard, Belt
11	130-3088	1	Grille Assembly	31	800-0055	4	Screw, Cap - Hex Head (3/8-16 x 2-1/4")
12	130-3037	1	Support, Grille	32	130-0968	1	Adapter, Pulley
13	130-3137-01	1	Guard, Fan (Right Hand)	33	104-1673	1	Pulley, Crankshaft (6" O.D.)
14	130-3137-02	1	Guard, Fan (Left Hand)	34	800-0023	4	Screw, Cap - Hex Head (1/4-20 x 1-3/8")
15	130-2983	1	Hub and Pulley Assembly (Includes the following non-illustrated parts marked *)	35	850-0040	4	Washer, Lock - Spring (1/4)
	130-0972	1	*Collar, Hub - Fan	36	504-0028	1	Cock, Drain (3/8-18 NPT)
	518-0348	2	*Ring, Retaining - Internal	37	130-3138	2	Shroud, Fan
	821-0011	4	*Screw, Self-Locking - Hex Washer Head (1/4-20 x 7/8")	38	130-3144	1	Radiator
	512-0170	1	*Pulley, Fan (5" O.D.)	39	130-3146	1	Guard, Belt
	130-0970	1	*Bearing, Hub - Fan	40	130-3145	1	Guard, Belt
	130-0969	1	*Hub, Drive - Fan	41	130-3272	1	Bracket, Guard - Belt
16	130-3041	1	Tube, Inlet - Upper Radiator	42	130-3034	1	Wrapper, Shroud - Fan
17	503-0365	6	Clamp, Hose	43	821-0028	12	Screw, Cap - Hex Head (3/8-16 x 1/2")
18	503-1599	2	Hose	44	130-1788	1	Cap, Radiator
19	821-0016	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 3/4")	45	130-3134	1	Guard, Belt
20	850-0060	1	Washer, Lock - Spring (1/2)				

\* - Parts included with Hub and Pulley Assembly.



# Cooling System (City Water)



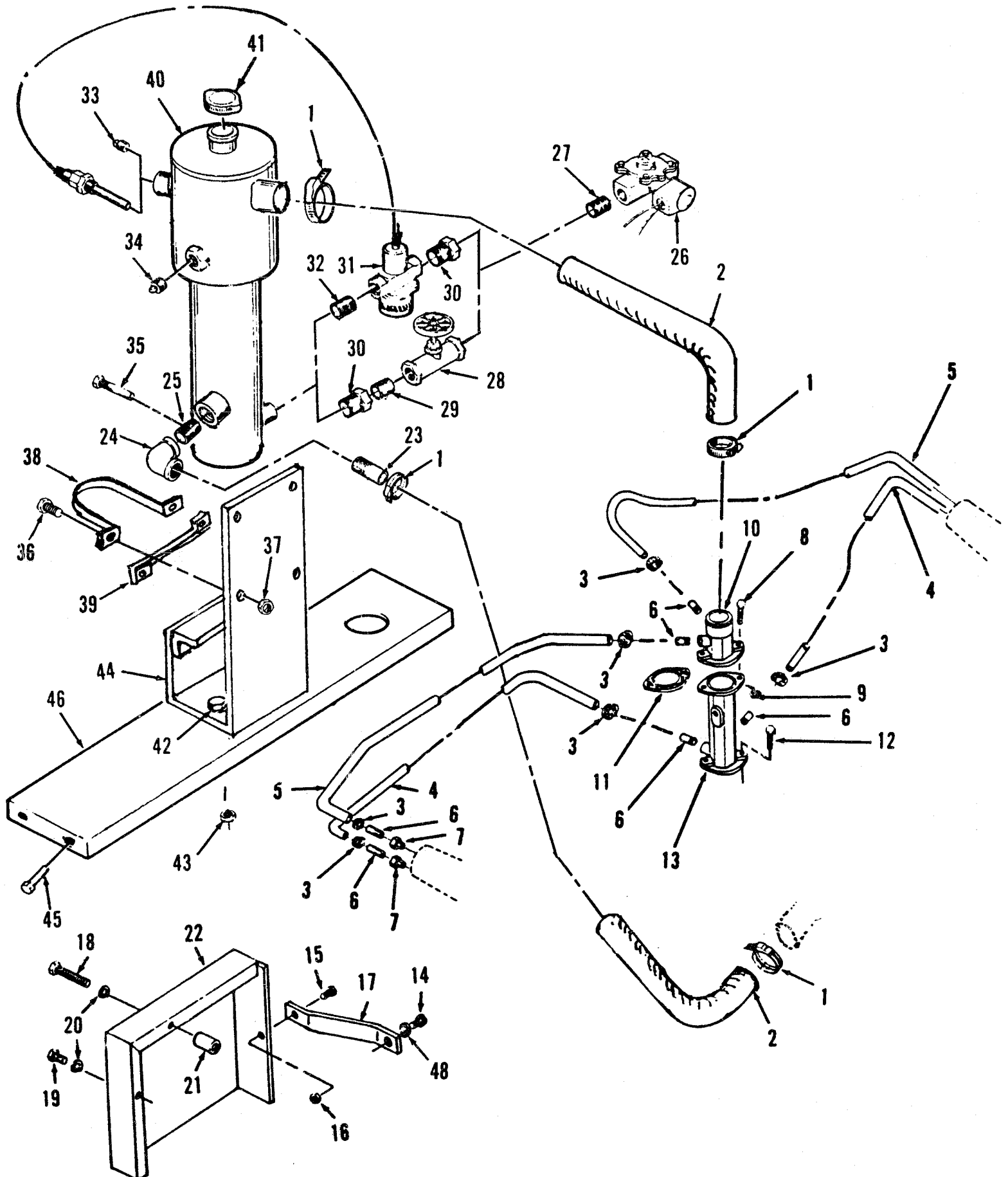


# **Cooling System (City Water)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0183	8	Clamp, Hose	24	130-1021	1	Plate, Outlet with Tapped Hole
2	503-0833	2	Hose, Rubber (5/8"ID x 24"LG)	25	130-1022	1	Plate, Outlet
3	503-1168	1	Hose, Rubber (5/8"ID x 36"LG)	26	130-1024	2	Gasket
4	503-1169	1	Hose, Rubber (5/8"ID x 48"LG)	27	821-0021	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1")
5	505-0135	8	Nipple, Pipe - Half (3/8 NPT x 1-1/2")	28	130-1019	1	Outlet, Water
6	505-0120	2	Elbow, Pipe - 90° (3/8 NPT)	29	821-0014	1	Screw, Self-Locking - Hex Washer Head (5/16-18 x 2")
7	505-0101	2	Nipple, Pipe - Close (3/8 NPT)	30	821-0010	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")
8	505-0019	6	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	31	870-0212	1	Nut, Self-Locking - Hex Washer Head
9	504-0028	1	Cock, Drain (3/8 NPT)	32	130-1008	1	Strap
10	505-0060	1	Tee, Pipe (3/8 NPT)	33	800-0054	1	Screw, Cap - Hex Head (3/8-16 x 2")
11	505-0101	1	Nipple, Pipe - Close (3/8 NPT)	34	800-0046	1	Screw, Cap - Hex Head (3/8-16 x 1/2")
12	505-0128	1	Bushing, Reducer - Hex (1-1/4 NPT x 3/8 NPT)	35	850-0050	2	Washer, Lock - Spring (3/8")
13	503-0465	2	Clamp, Hose	36	130-1009	1	Spacer, Sleeve
14	503-0809	1	Hose, Rubber (2-5/8"ID x 3"LG)	37	130-1050	1	Guard, Belt
15	505-0031	1	Coupling, Pipe (1-1/4 NPT)	38	821-0013	2	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1")
16	505-0019	1	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	39	870-0065	2	Nut, Self-Locking - Hex (1/4-20)
17	505-0131	1	Bushing, Reducer - Hex (3/4 NPT x 3/8 NPT)	40	110-0526	1	Nipple, Pipe with Bracket (1/2 NPT)
18	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	41	821-0014	7	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")
19	309-0241	1	Valve, Control - Temperature Regulating	42	130-0499	1	Plate, Mounting
20	504-0019	1	Valve, Globe (1/2 NPT)	43	800-0046	2	Screw, Cap - Hex Head (3/8-16 x 1/2")
21	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)	44	850-0050	2	Washer, Lock - Spring (3/8")
22	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1-1/2")	45	148-0274	2	Bracket, Support - Hose
23	870-0048	2	Nut, Self-Locking - Hex Washer Head (5/16-18)				



# Cooling System (Heat Exchanger)



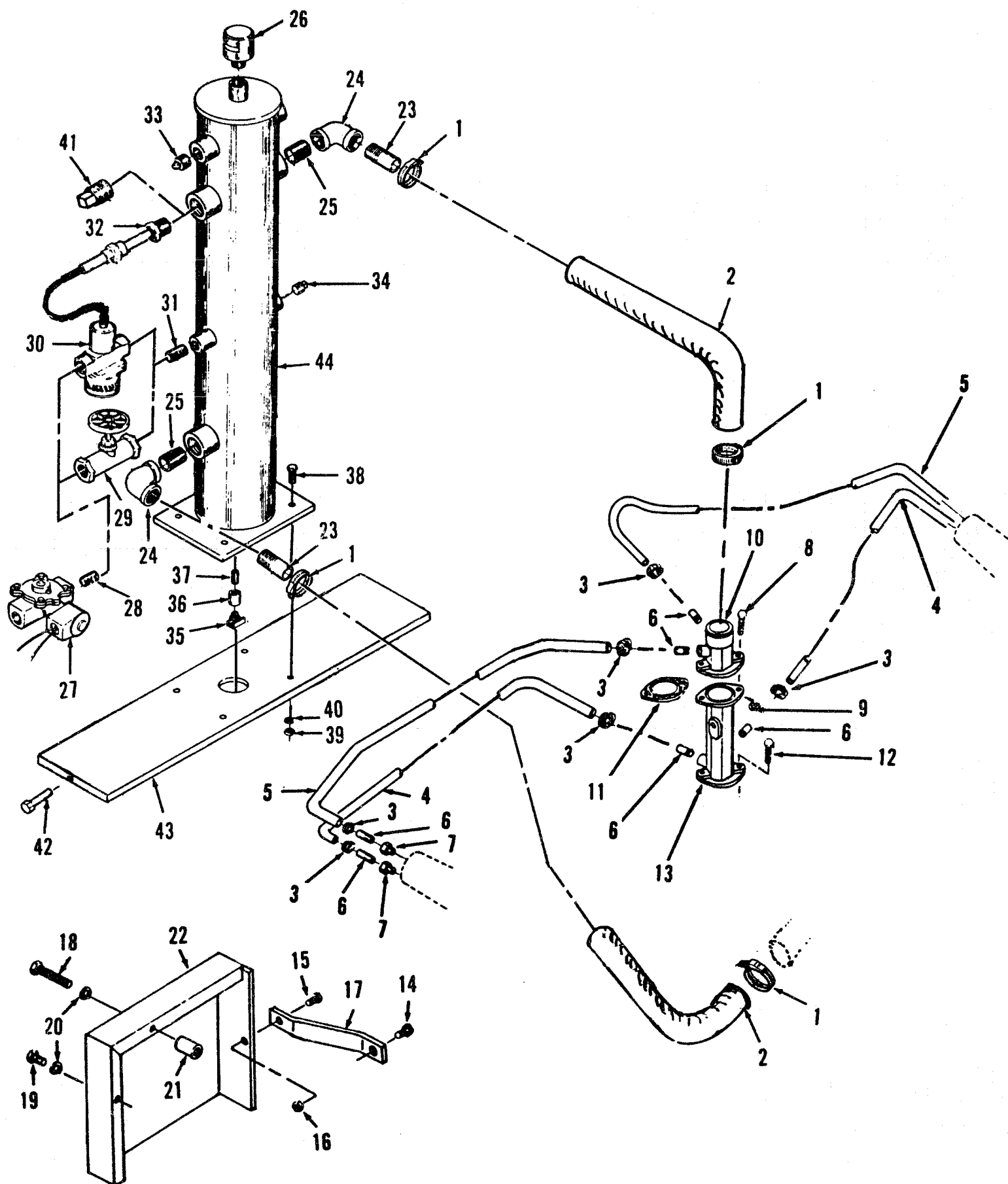


# **Cooling System (Heat Exchanger)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0274	4	Clamp, Hose	27	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8")
2	503-0753	2	Hose, Radiator (2"ID x 24"LG)	28	504-0019	1	Valve, Globe (1/2 NPT)
3	503-0183	8	Clamp, Hose	29	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8")
4	503-0386	2	Hose, Rubber (5/8"ID x 23"LG)	30	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)
5	503-0386	2	Hose, Rubber (5/8"ID x 28"LG)	31	309-0241	1	Valve, Control - Temperature Regulating
6	505-0135	8	Nipple, Pipe - Half (3/8 NPT x 1-1/2")	32	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8")
7	505-0019	4	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	33	505-0130	1	Plug, Pipe - Square Head (3/4 NPT)
8	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1-1/2")	34	505-0130	1	Plug, Pipe - Square Head (3/4 NPT)
9	870-0048	2	Nut, Self-Locking - Hex (5/16-18)	35	130-1340	1	Pencil, Zinc (3/8 NPT)
10	130-1018	1	Adapter, Thermostat	36	821-0011	5	Screw, Self-Locking - Hex Washer Head (1/4-20 x 7/8")
11	130-1024	2	Gasket	37	870-0212	5	Nut, Self-Locking - Hex Washer Head (1/4-20)
12	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1")	38	130-0802	2	Strap, Holddown - Heat Exchanger
13	130-1019	1	Outlet, Water	39	130-1112	1	Support, Heat Exchanger
14	800-0069	1	Screw, Hex Head Cap (7/16-14 x 3/4")	40	130-1111	1	Heat Exchanger (Includes Cap)
15	821-0010	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")	41	130-0661	1	Cap, Radiator (7 Lb PSI)
16	870-0212	1	Nut, Self-Locking - Hex Washer Head (1/4-20)	42	821-0016	3	Screw, Self-Locking - Hex Washer Head (5/16-18 x 3/4")
17	130-1008	1	Strap, Belt Guard	43	870-0048	3	Nut, Self-Locking - Hex (5/16-18)
18	800-0054	1	Screw, Cap - Hex Head (3/8-16 x 2")	44	130-1110	1	Bracket, Mounting - Heat Exchanger
19	800-0046	1	Screw, Cap - Hex Head (3/8-16 x 1/2")	45	821-0014	6	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")
20	850-0050	2	Washer, Lock - Spring (3/8")	46	130-0805	1	Plate, Mounting - Heat Exchanger
21	130-1009	1	Spacer, Belt Guard	47	503-0846	1	Hose, Radiator (2.00ID x 20.00)
22	130-1050	1	Guard, Belt	48	850-0055	1	Washer, Lock - Spring (7/16")
23	503-0385	1	Nipple, Pipe - Half (1-1/2 NPT x 2"LG)				
24	505-0043	1	Elbow, Pipe - 90° (1-1/2 NPT)				
25	505-0109	1	Nipple, Pipe - Close (1-1/2 NPT)				
26	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)				



# Cooling System (Standpipe)



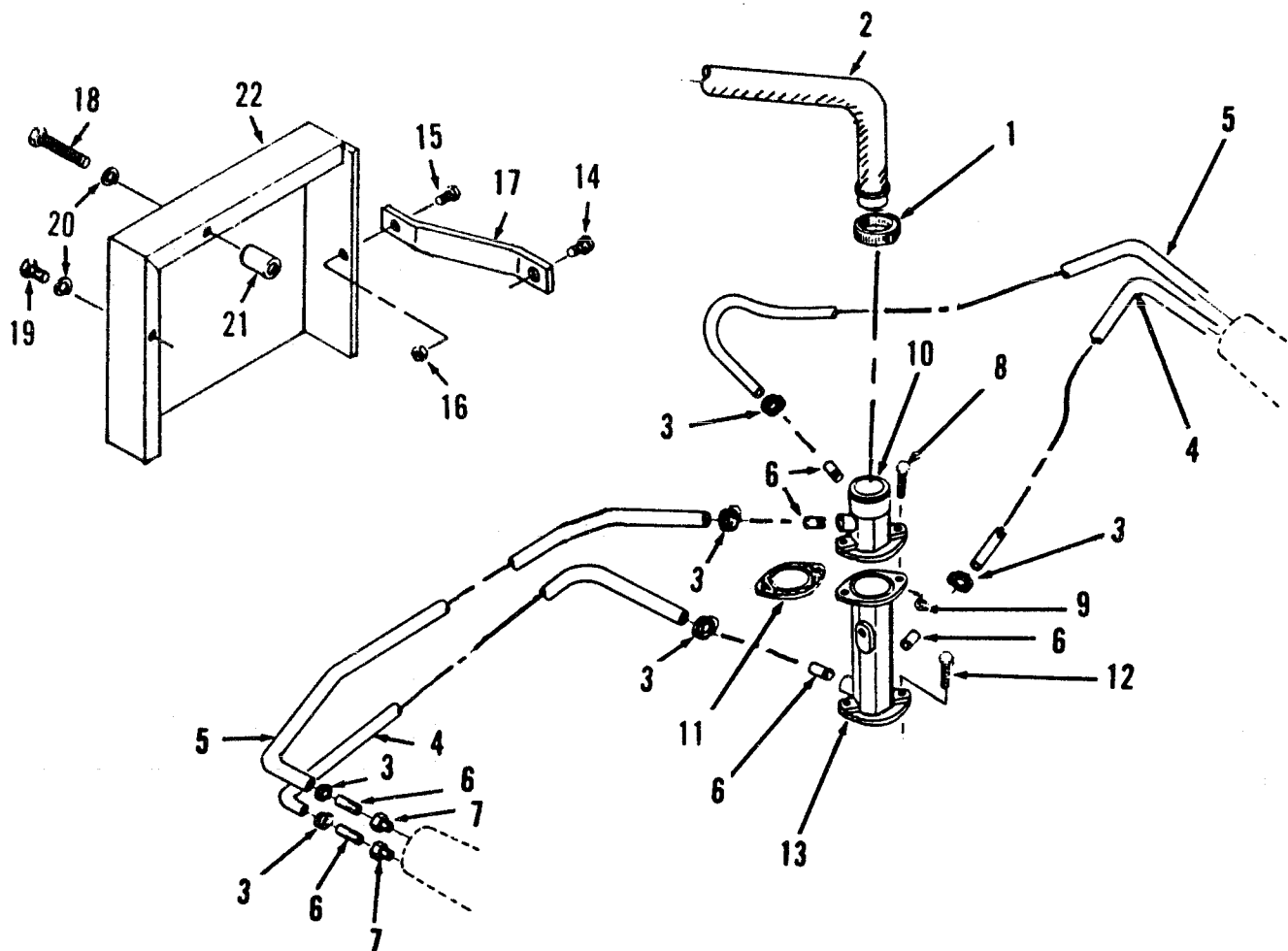


## Cooling System (Standpipe)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0274	4	Clamp, Hose	23	505-0385	2	Nipple, Pipe - Half (1-1/2 NPT x 2" LG)
2	503-0753	1	Hose, Radiator (2"ID x 19"LG)	24	505-0043	2	Elbow, Pipe - 90° (1-1/2 NPT)
3	503-0183	8	Clamp, Hose	25	505-0220	2	Nipple, Pipe - Close (1-1/2 NPT)
4	503-0386	2	Hose, Rubber (5/8"ID x 24"LG)	26	504-0062	1	Valve, Vacuum Relief (1/2 NPT)
5	503-0386	2	Hose, Rubber (5/8"ID x 36"LG)	27	307-0835	1	Valve, Solenoid - 12 VDC (3/4 NPT)
6	505-0135	8	Nipple, Pipe - Half (3/8 NPT x 1-1/2")	28	505-0102	1	Nipple, Pipe - Close (3/4 NPT)
7	505-0019	4	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	29	504-0046	1	Valve, Globe (3/4 NPT)
8	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1-1/2")	30	309-0241	1	Valve, Control - Temperature Regulating (3/4 NPT)
9	870-0048	2	Nut, Self-Locking - Hex (5/16-18)	31	505-0102	1	Nipple, Pipe - Close (3/4 NPT)
10	130-1018	1	Adapter, Thermostat	32	505-0289	1	Bushing, Reducer - Hex (1-1/2 NPT x 3/4 NPT)
11	130-1024	2	Gasket	33	505-0140	1	Plug, Pipe - Square Head (1 NPT)
12	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1")	34	505-0130	1	Plug, Pipe - Square Head
13	130-1019	1	Outlet, Water	35	504-0028	1	Cock, Drain (3/8 NPT)
14	800-0069	1	Screw, Hex Head Cap (7/16-14 x 3/4")	36	505-0028	1	Coupling, Pipe (3/8 NPT)
15	821-0010	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")	37	505-0101	1	Nipple, Pipe - Close (3/8 NPT)
16	870-0212	1	Nut, Self-Locking - Hex Washer Head (1/4-20)	38	821-0030	4	Screw, Self-Locking - Hex Washer Head (3/8-16 x 1")
17	130-1008	1	Strap	39	870-0133	4	Nut, Self-Locking - Hex (3/8-16)
18	800-0054	1	Screw, Cap - Hex Head (3/8-16 x 2")	40	850-0050	4	Washer, Lock - Spring (3/8")
19	821-0029	1	Screw, Self-Locking (7/16-14 x 3/4")	41	505-0402	1	Plug, Pipe - Square Head (1-1/2 NPT)
20	850-0050	1	Washer, Lock - Spring (3/8")	42	821-0014	7	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")
21	130-1009	1	Spacer, Sleeve	43	130-0636	1	Plate, Mounting - Standpipe
22	130-1050	1	Guard, Belt	44	130-0635	1	Standpipe



# **Cooling System (Remote Radiator)**



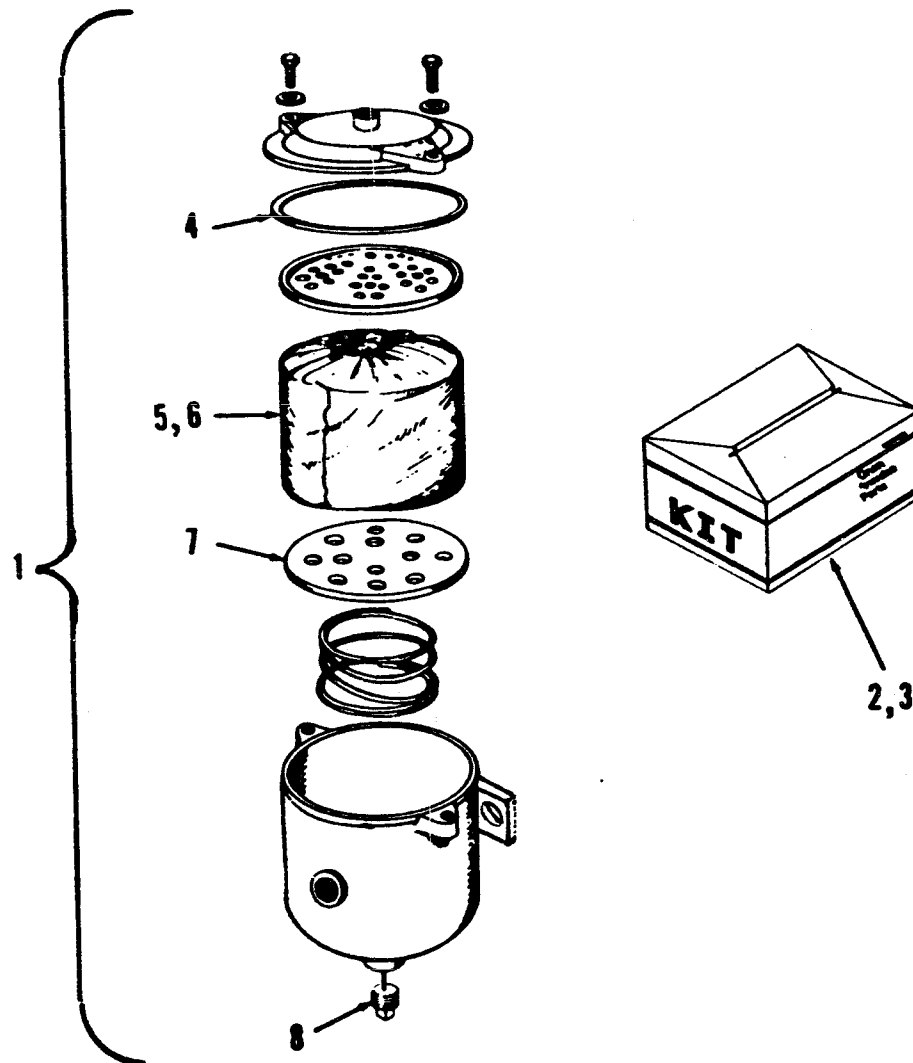
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0274	1	Clamp, Hose
2	#503-0753	1	Hose, Radiator (2"ID)
3	503-0183	8	Clamp, Hose
4	503-0386	2	Hose, Rubber (5/8"ID x 24"LG)
5	503-0386	2	Hose, Rubber (5/8"ID x 36"LG)
6	505-0135	8	Nipple, Pipe - Half (3/8 NPT x 1-1/2")
7	505-0019	4	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)
8	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")
9	870-0048	2	Nut, Self-Locking - Hex (5/16-18)
10	130-1018	1	Adapter, Thermostat
11	130-1024	2	Gasket
12	821-0023	2	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
13	130-1019	1	Outlet, Water
14	800-0069	1	Screw, Hex Head Cap (7/16-14 x 3/4")
15	821-0010	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")
16	870-0212	1	Nut, Self-Locking - Hex Washer Head (1/4-20)
17	130-1008	1	Strap
18	800-0054	1	Screw, Cap - Hex Head (3/8-16 x 2")
19	821-0029	1	Screw, Self-Locking (7/16-14 x 3/4")
20	850-0050	1	Washer, Lock - Spring (3/8")
21	130-1009	1	Spacer, Sleeve
22	130-1050	1	Guard, Belt

# - Required length will vary per installation; measure the hose to be replaced and contact the nearest Authorized Onan Distributor for parts.



# Filter - Coolant

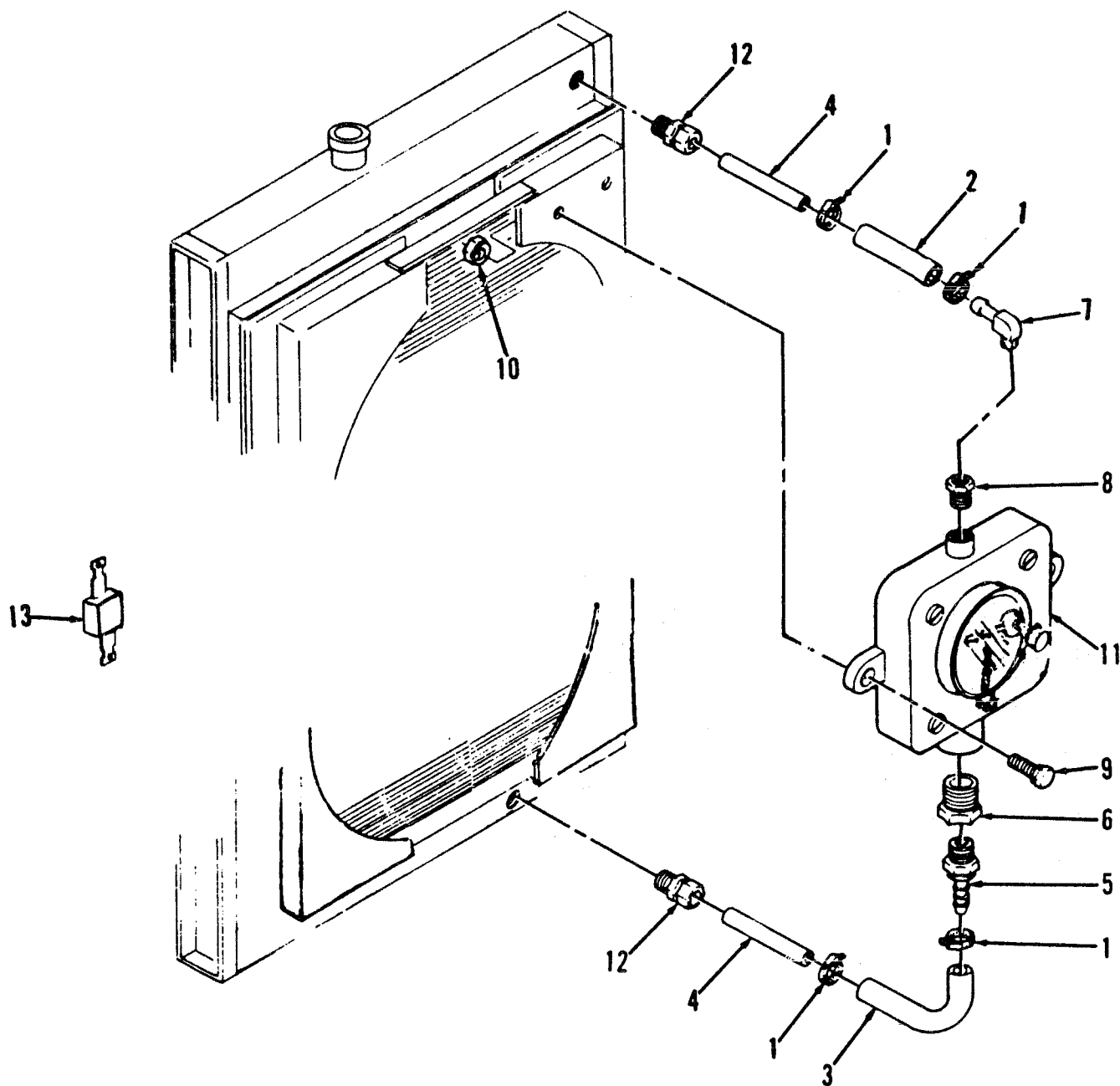


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	130-0497	1	Filter, Coolant (Includes Element Marked *)	4	130-0778	1	*Gasket, Cover
2	130-0771	1	Kit, Replacement (Includes Parts Marked *)	5	130-0775	1	*Element (Water)
3	130-0772	1	Kit, Replacement (Includes Parts Marked *)	6	130-0776	1	#Element (Anti-freeze)
				7	130-0780	1	*#Plate, Sacrificial
				8	502-0155	1	Plug, Pipe - Brass (3/8 NPT)

\* - Parts included in Replacement Kit.  
# - Parts included in Replacement Kit.



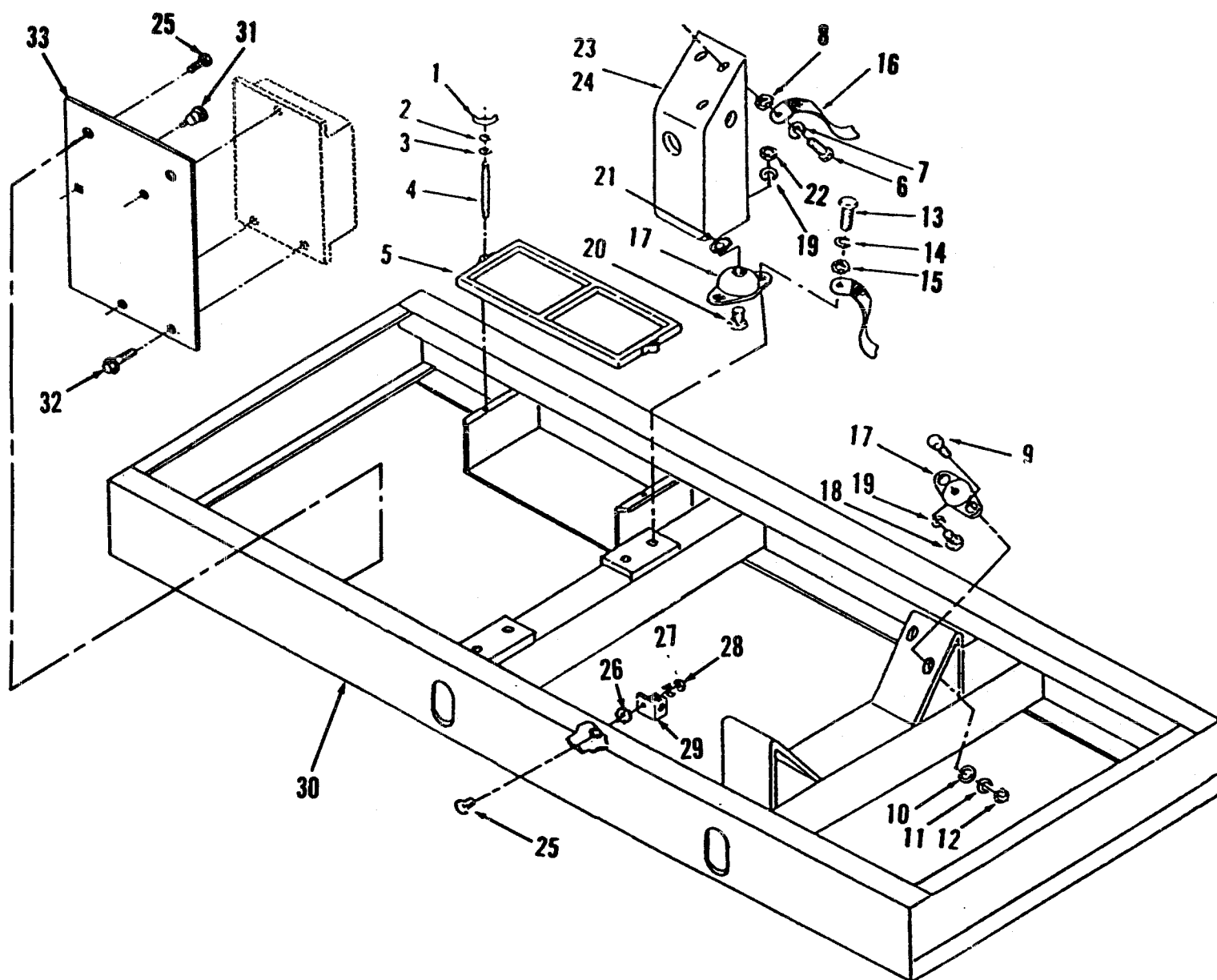
# Switch - Low Coolant Level



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0446	4	Clamp, Hose	9	821-0011	2	Screw, Self-Locking - Hex Washer Head (1/4-20 x 7/8")
2	503-0743	1	Hose, Rubber (1/4"ID x 18"LG)	10	870-0212	2	Nut, Self-Locking - Hex Washer Head (1/4-20)
3	503-1118	1	Hose, Rubber (1/4"ID x 48"LG)	11	193-0329	1	Switch, Coolant Level
4	130-2053	2	Tube, Copper (1/4"OD x 2"LG)	12	502-0809	2	Adapter, Tube (Blind Hole Fitting) 5/8"OD x 1/4"OD Tube
5	503-0395	1	Connector, Pipe to Hose (1/8 NPT x 3/16"ID Hose)	13	357-0030	2	Diode, Rectifier (Used in Wiring Harness Leads)
6	505-0151	1	Bushing, Reducer - Hex, Brass (1/2 NPT x 1/8 NPT)				
7	502-0313	1	Elbow, Pipe to Hose - 90° (1/8 NPT x 1/4"ID Hose)				
8	505-0007	1	Bushing, Reducer - Hex, Brass (1/4 NPT x 1/8 NPT)				



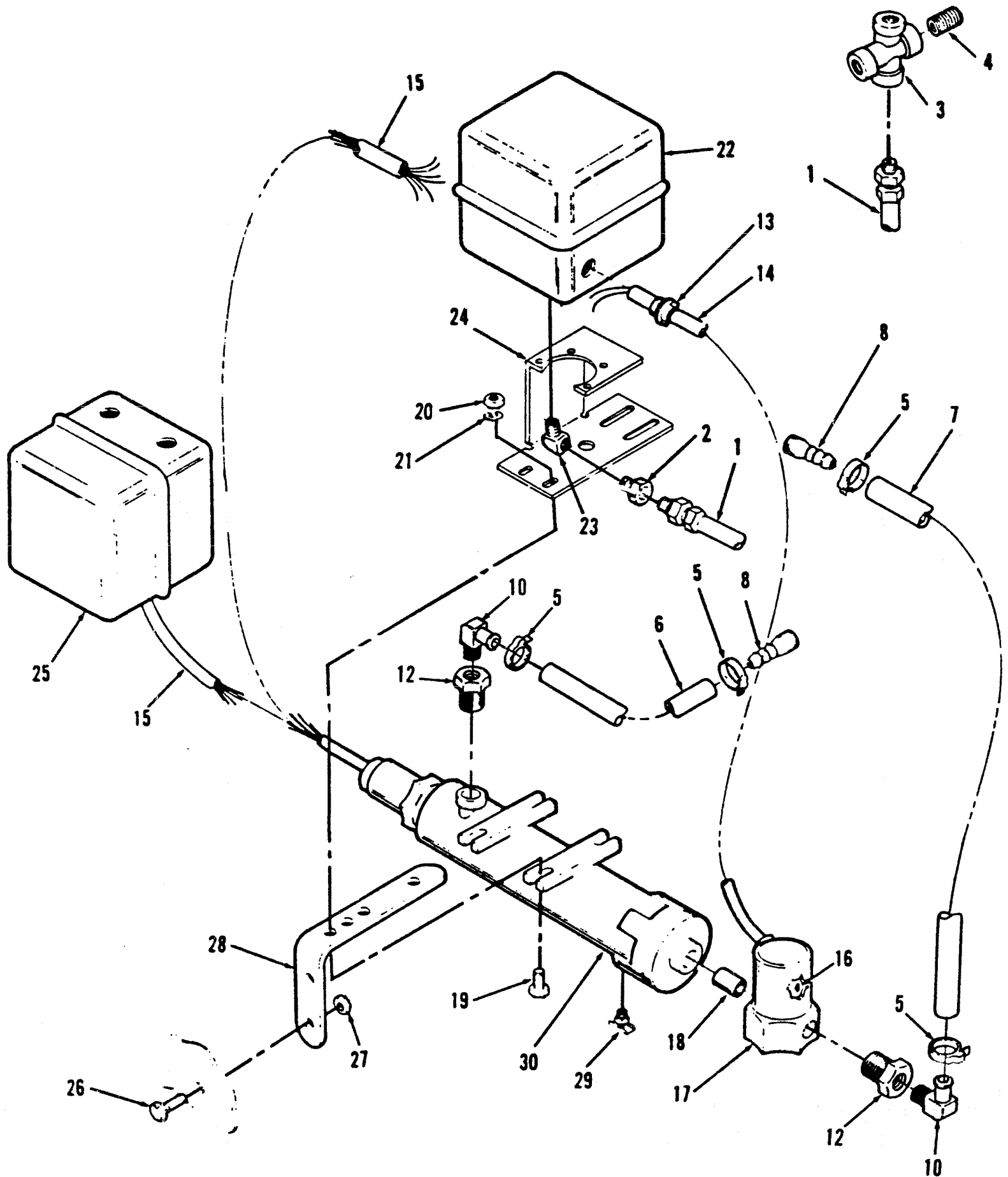
# Chassis



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	865-0007	2	Nut, Wing (5/16-18)	19	850-0079	4	Washer, Lock - Spring (3/4")
2	850-0045	2	Washer, Lock - Spring (5/16")	20	800-0153	2	Screw, Cap - Hex Head (3/4-10 x 1-1/2")
3	526-0115	2	Washer, Flat (5/16")	21	526-0238	2	Washer, Flat (3/4")
4	520-0838	2	Stud (5/16-18 x 4-1/2" LG)	22	862-0008	2	Nut, Hex (3/4-10)
5	416-0338	1	Frame, Holddown - Battery	23	403-2505-01	1	Bracket, Mounting - Engine Right Side
6	800-0071	6	Screw, Cap - Hex Head (7/16-14 x 1")	24	403-2505-02	1	Bracket, Mounting - Engine Left Side (Not Illustrated)
7	850-0055	6	Washer, Lock - Spring (7/16")	25	800-0026	3	Screw, Cap - Hex Head (5/16-18 x 3/4")
8	856-0012	6	Washer, Lock - EIT (7/16")	26	856-0008	1	Washer, Lock - EIT (5/16")
9	800-0071	4	Screw, Cap - Hex Head (7/16-14 x 1")	27	850-0045	1	Washer, Lock - Spring (5/16")
10	526-0219	4	Washer, Flat (7/16")	28	870-0257	1	Nut, Self-locking - Hex Washer Head (5/16-18)
11	850-0055	5	Washer, Lock - Spring (7/16")	29	332-1473	1	Terminal, Lug - Ground
12	862-0004	4	Nut, Hex (7/16-14)	30	403-2546	1	Base, Skid
13	800-0090	4	Screw, Cap - Hex Head (1/2-13 x 1")	31	870-0196	1	Nut Insulation
14	850-0060	4	Washer, Lock - Spring (1/2")	32	821-0018	3	Screw, Lockhead (1/4-20 x 5/8")
15	856-0013	2	Washer, Lock - EIT (1/2")	33	166-0773	1	Bracket, Ignition Module
16	337-0090	1	Strap, Electrical - Ground				
17	402-0371	4	Mount, Vibration				
18	800-0520	2	Screw, Cap - Hex Head (3/4-10 x 1")				



# Heater - Engine Coolant



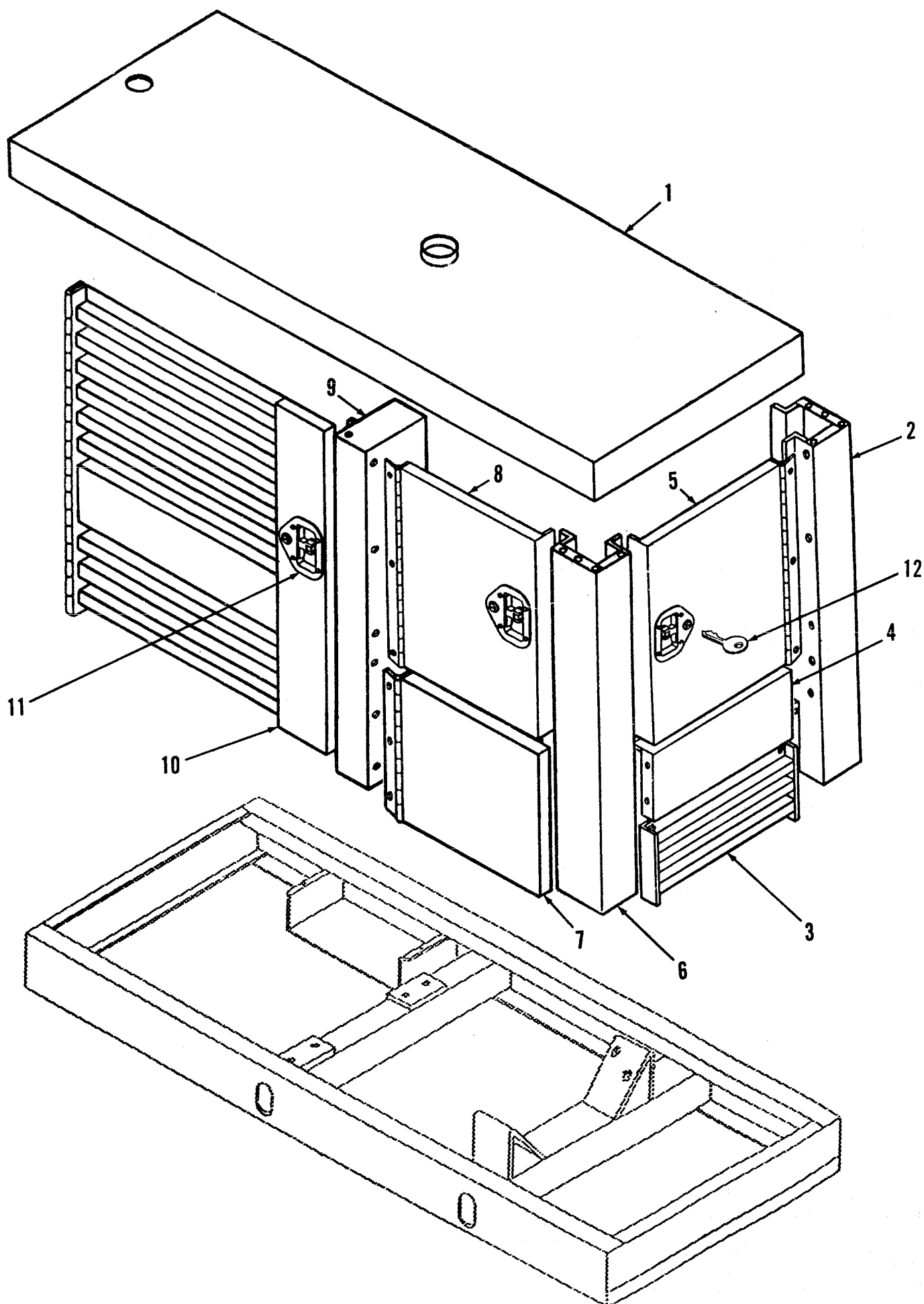


# Heater - Engine Coolant

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0225	1	Line, Fuel - Flexible	21	850-0040	4	Washer, Lock - Spring
2	505-0007	1	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)	22	309-0307	1	Switch, Pressure
3	505-0763	1	Cross, Pipe (1/8 NPT)	23	502-0054	1	Elbow, Pipe - Street, 90°, Brass (1/4 NPT)
4	505-0098	1	Nipple, Pipe - Close (1/8 NPT x 3/4"LG)	24	333-0224	1	Bracket, Mounting - Pressure Switch
5	503-0183	4	Clamp, Hose		812-0079	4	Screw, Machine - Round Head (#8-32 x 1/2")
6	503-0832	1	Hose, Rubber (5/8"ID x 12"LG)		850-0025	4	Washer, Lock - Spring (#8)
7	503-0843	1	Hose, Rubber (5/8"ID x 40"LG)	25	307-1460	1	Contactor, Electrical 230 VAC, 3 Pole
8	502-0613	2	Connector, Hose (1/4 x 5/8 ID)		307-1164	1	460 VAC, 3 Pole
10	502-0942	2	Elbow, Pipe - 90° (3/8 NPT)	26	821-0016	4	Screw, Self-locking - Hex Washer Head (5/16-18 x 3/4")
12	505-0455	2	Bushing, Reducer - Hex (1 NPT x 3/8 NPT)	27	870-0257	4	Nut, Self-locking - hex Washer Head (5/16-18)
13	331-0027	6	Connector, Romex	28	130-1192	2	Bracket, Mounting - Heater
14	NFS		Cord, Electrical (2-#14, Type SO, 600 Volt)	29	504-0003	1	Cock, Drain (1/4 NPT)
15	NFS		Cable, Electrical (3-#12 or 4-#14, Type SO, 600 Volt)	30			Heater, Electrical - Engine Coolant
16			Terminals (Select as Required)		333-0158	1	2000 Watt, 115 VAC, 1 Phase
	332-0014	4	#10		333-0167	1	2000 Watt, 208 VAC, 1 Phase
	332-0149	4	#8		333-0148	1	2000 Watt, 208 VAC, 3 Phase
	323-0057	4	Wire Nut		333-0141	1	2000 Watt, 240 VAC, 1 Phase
17	309-0304	1	Switch, Thermostatic (on 80°, 106°F)		333-0176	1	2000 Watt, 380 VAC, 1 Phase
18	505-0004	1	Nipple, Pipe - Close (1 NPT x 1-1/2"LG)		333-0170	1	2000 Watt, 380 VAC, 1 Phase
19	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")		333-0147	1	2000 Watt, 480 VAC, 1 Phase
20	862-0001	4	Nut, Hex (1/4-20)		333-0146	1	2000 Watt, 440 VAC, 3 Phase
					333-0172	1	2500 Watt, 440 VAC, 3 Phase



# Set Housing



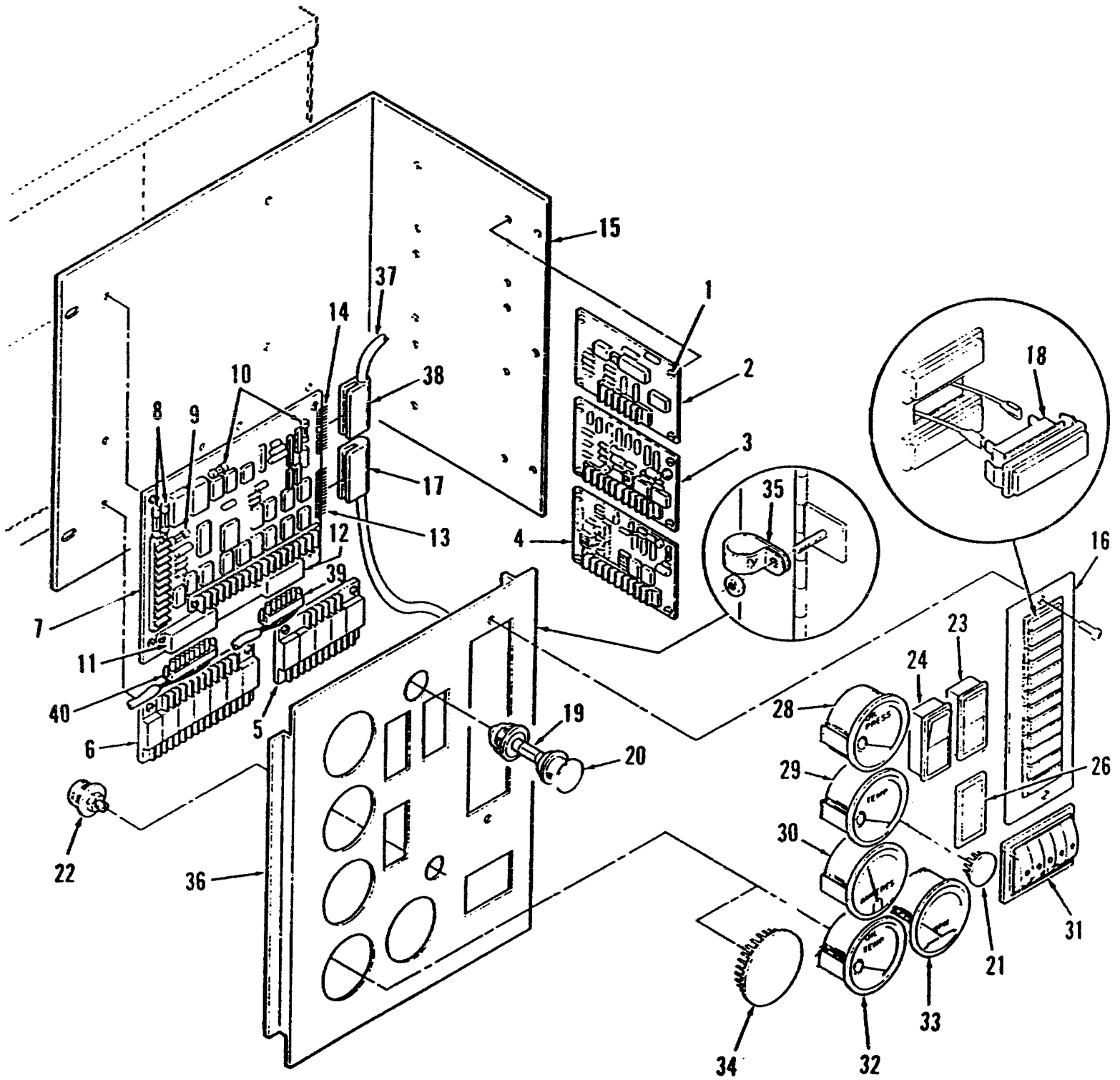


# Set Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-3772	1	Top, Housing	7			Door, Access
	821-0029	14	Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")		405-3984	1	Right Hand (Shown)
	870-0281	14	Nut, Self-Locking - Hex (3/8-16)		819-1083	3	Screw, Pan Head - Recessed (1/4-20 x 7/16")
2	405-3859-02	1	Post, Housing - Rear (Left Hand)		405-3985	1	Left Hand (Not Illustrated)
	821-0029	2	Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")		819-1083	3	Screw, Pan Head - Recessed (1/4-20 x 7/16")
	870-0281	2	Nut, Self-Locking - Hex (3/8-16)	8	405-3950	2	Door, Side
3	405-3833	1	Grille		819-1083	6	Screw, Pan Head - Recessed (1/4-20 x 7/16")
	821-0014	4	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")	9			Post, Housing Center
4	405-3828	1	Panel, Housing (Rear)		405-3858-01	1	Right Hand (Shown)
	821-0014	4	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")		821-0029	2	Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")
	870-0257	4	Nut, Self-Locking - Hex (5/16-18)		405-3858-02	1	Left Hand (Not Illustrated)
5	405-3952	1	Door, Control		821-0029	2	Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")
	819-1083	3	Screw, Pan Head - Recessed (1/4-20 x 7/16")	10			Door, Grille
6	405-3859-01	1	Post, Housing - Rear (Right Hand)		405-3864	1	Right Hand (Shown)
	821-0029	2	Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4")		819-1102	5	Screw, Pan Head - Recessed (5/16-18 x 1/2")
	870-0281	2	Nut, Self-Locking - Hex (3/8-16)		405-4032	1	Left Hand (Not Illustrated)
					819-1102	5	Screw, Pan Head - Recessed (5/16-18 x 1/2")
				11	406-0626	5	Handle, Housing
					815-0607	20	Screw, Oval Head (#8-32 x 3/8")
					870-0235	20	Nut, Self-Locking - Hex (#8-32)
				12	406-0577	1	Key



# Engine Control





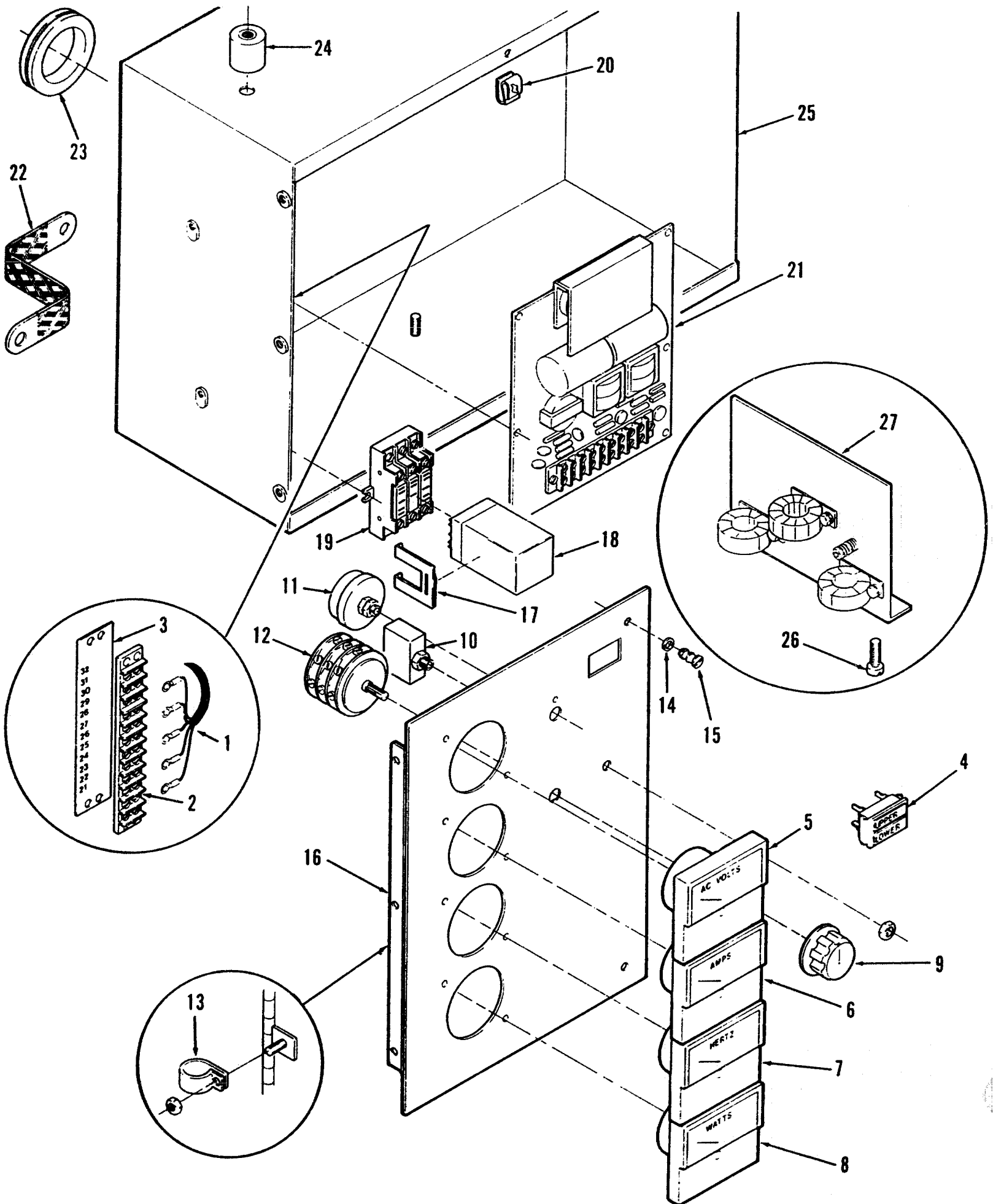
# Engine Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	24	Screw, Machine - Round Head With IT Lock Washer (#6-32 x 1/2")	17	323-1310	1	Housing, Connector - 13 Pin (J3)
2	300-2897	1	Board - Time Delay Start/Stop - 12 VDC (A15)		323-1302	13	Contact, Pin
3			Board - Magnetic Sensor, Start Disconnect/Over Speed Sensor (A16)	18	322-0369-01	1	Lamp, Incandescent - 1/3 Watt 14 VDC
	300-2901	1	Standard	19	322-0004	1	Lamp, Incandescent (DS11) 14 VDC
	300-2902	1	Precision	20	322-0361	1	Holder, Lamp
4	300-2905	1	Board - Over-Voltage Voltage Sensor - 12 VDC (A17)	21	517-0131	1	Plug, Button
5	300-2855	1	Board - 5 Relay 12 VDC (A13)	22	151-0402	1	Potentiometer - Speed Control (R11)
6	300-2862	1	Board - 7 Relay 12 VDC (A14)	23	308-0785	1	Switch, Push - Reset/Panel Lamp (S11)
7			Board - Engine Monitor (A11) (Includes Fuses and Connectors)	24	308-0784	1	Switch, Push - Run/Stop/ Remote (S12)
	300-2807	1	12 VDC, 2 Light	26	301-6257	1	Cover - Switch Mounting Hole
	300-2809	1	12 VDC, 7 Light	28	193-0352	1	Gauge, Pressure - Oil (M11)
	300-2811	1	12 VDC, 12 Light	29	193-0351	1	Gauge, Temperature - Water (M12)
8	321-0270	2	Fuse, Cartridge 20 Amp (F1, F2)	30	302-1790	1	Ammeter - DC (M13)
9	321-0231	1	Fuse, Cartridge 15 Amp (F3)	31	302-0885	1	Meter, Totalizing - Time (M14)
10	321-0094	2	Fuse, Cartridge 5 Amp (F4, F5)	32	193-0330	1	Gauge, Temperature - Oil (M15)
11	323-1305	1	Connector - 8 Pin (P1)	33	302-1873-01	1	Tachometer (M16)
12	323-1303	1	Connector - 6 Pin (P2)	34	517-0221	1	Plug, Button
13	323-1309	1	Connector - 13 Pin (P3)	35	332-0052	1	Clamp, Loop
14	323-1307	1	Connector - 12 Pin (P4)		870-0131	1	Nut, Self-locking - Hex with IT Lock Washer (#10-32)
15	301-8851	1	Bracket, Mounting	36			Door, Control (Qty Meter Holes Indicated)
	821-0004	4	Screw, Self-locking - Hex Washer Head (#10-32 x 5/16")		301-9055-01	1	5 Meter Holes
16			Module, Indicator - Fault (A12) (Includes Connector)		301-9055-02	1	3 Meter Holes
	322-0358-01	1	12 VDC, 2 Light	37	338-1817	1	Harness, Wiring - DC (Includes Connector)
	322-0360-01	1	12 VDC, 12 Light	38	323-1308	1	Housing, Connector - 12 Pin (J4)
	815-0385	2	Screw, Machine - Round Head, Black (#6-32 x 1/2")		323-1302	12	Contact, Pin
	870-0183	2	Nut, Self-locking - Hex with IT Lock Washer (#6-32)	39	323-1304	1	*Housing, Connector - 6 Place
					323-1200	6	*Contact, Pin
				40	323-1306	1	*Housing, Connector - 8 Place
					323-1200	8	*Contact, Pin

\* - Parts Included in Engine Wiring Harness.



# Generator Control



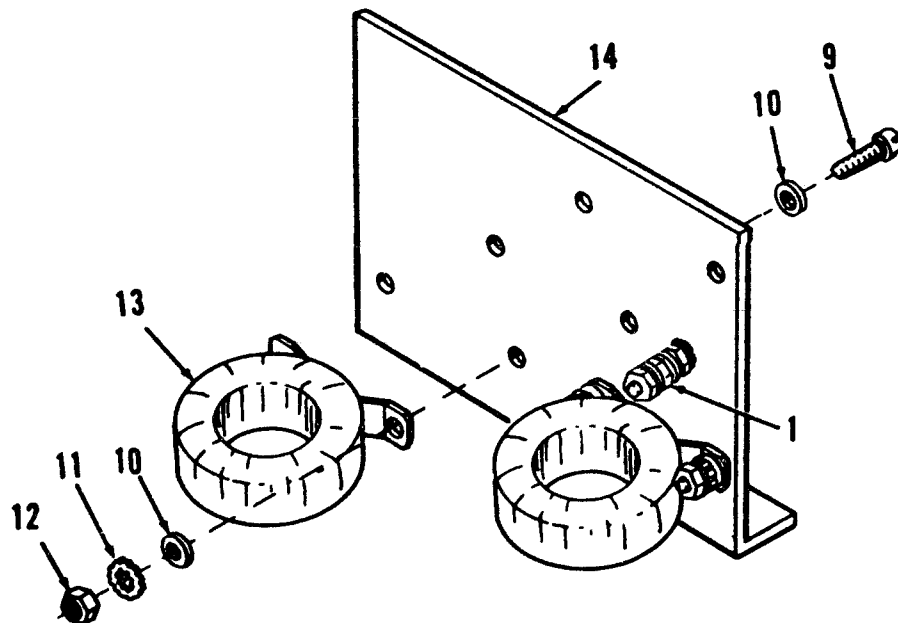
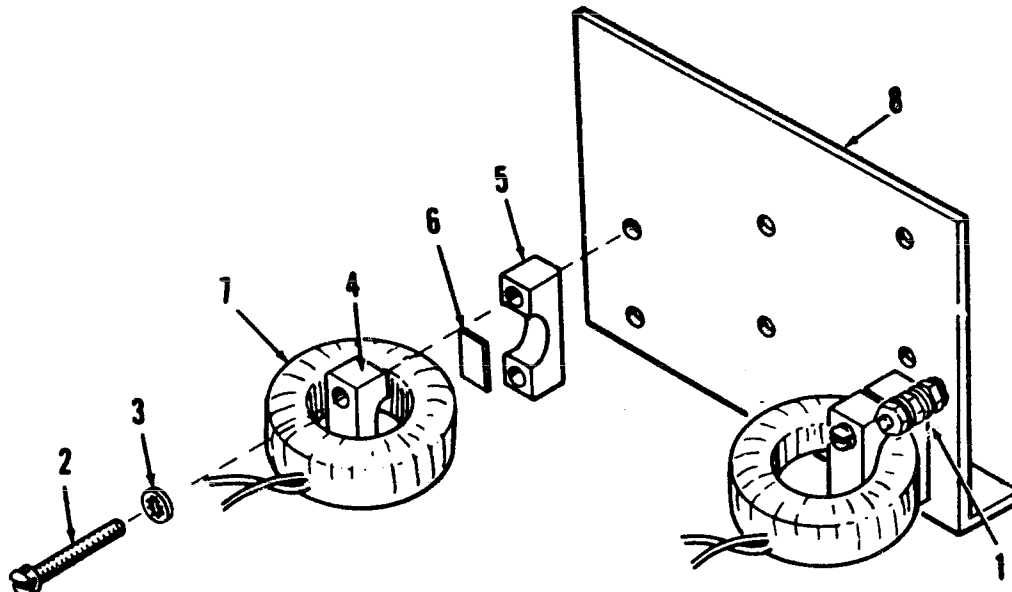


# Generator Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Wiring - (Includes Terminal Block)	17	307-1987	2	Clip - Relay
	338-1818	1	Control with Meters	18	307-1058	1	Relay, 12 VDC (K21)
	338-1853	1	Control without Meters	19	323-0804	1	Socket, Relay
	812-0065	2	Screw, Machine - RH (#6-32 x 5/8")		815-0544	2	Screw, Machine - RH with IT Lock Washer (#6-32 x 1/2")
2	332-0607	1	Block, Terminal (TB1)	20	406-0332	2	Receptacle - Fastener
3	332-2723	1	Strip, Marker	21	300-2880	1	Regulator, Voltage (VR21)
4	322-0363	1	Light, Indicator - Dual (DS21, DS22)		815-0544	6	Screw, Machine - RH with IT Lock Washer (#6-32 x 1/2")
5	302-1148	1	Voltmeter (M21)				
6			Ammeter (M22) (Applicable Voltage Codes Indicated)	22	337-0049	1	Strap, Electrical
	302-1691	1	0-100 Amp (Code 9)		800-0024	1	Screw, Cap - Hex Hd (5/16-18 x 1/2")
	302-1684	1	0-150/300 Amp (Codes 15,515)		856-0008	1	Washer, Lock - EIT (5/16")
7	302-1720	1	Meter, Frequency (M23)	23	508-0051	1	Grommet
		1	Wattmeter (M24) (See Separate page for Components)	24	402-0527	2	Mount, Vibration
					800-0045	4	Screw, Cap - Hex Hd (5/16-18 x 3/8")
9	303-0032	1	Knob		850-0045	4	Washer, Lock - Spring (5/16")
10			Breaker, Circuit (CB21)				
	320-1121	1	Standard				
	320-1438	1	With Aux Contact	25	301-8065	1	Box, Control
11	303-0261	1	Rheostat (R21)	26	821-0010	2	Screw, Self-locking - HWH (1/4-20 x 1/2")
12	308-0284	1	Switch, Rotary (S21)				
13	332-0052	1	Clamp, Loop	27		1	Current Transformer (See Separate Page for Components)
	870-0131	1	Nut, Self-locking - Hex with ET Lock Washer (#10-32)				
14	406-0334	2	Clip - Fastener				
15	406-0333	2	Stud - Fastener				
16			Door, Control				
	301-9054-01	1	With 4 Meter Holes				
	301-9054-02	1	With 3 Meter Holes				
	301-9054-03	1	With No Meter Holes				
	821-0004	3	Screw, Self-locking - HWH (#10-32 x 5/16")				



# Current Transformer



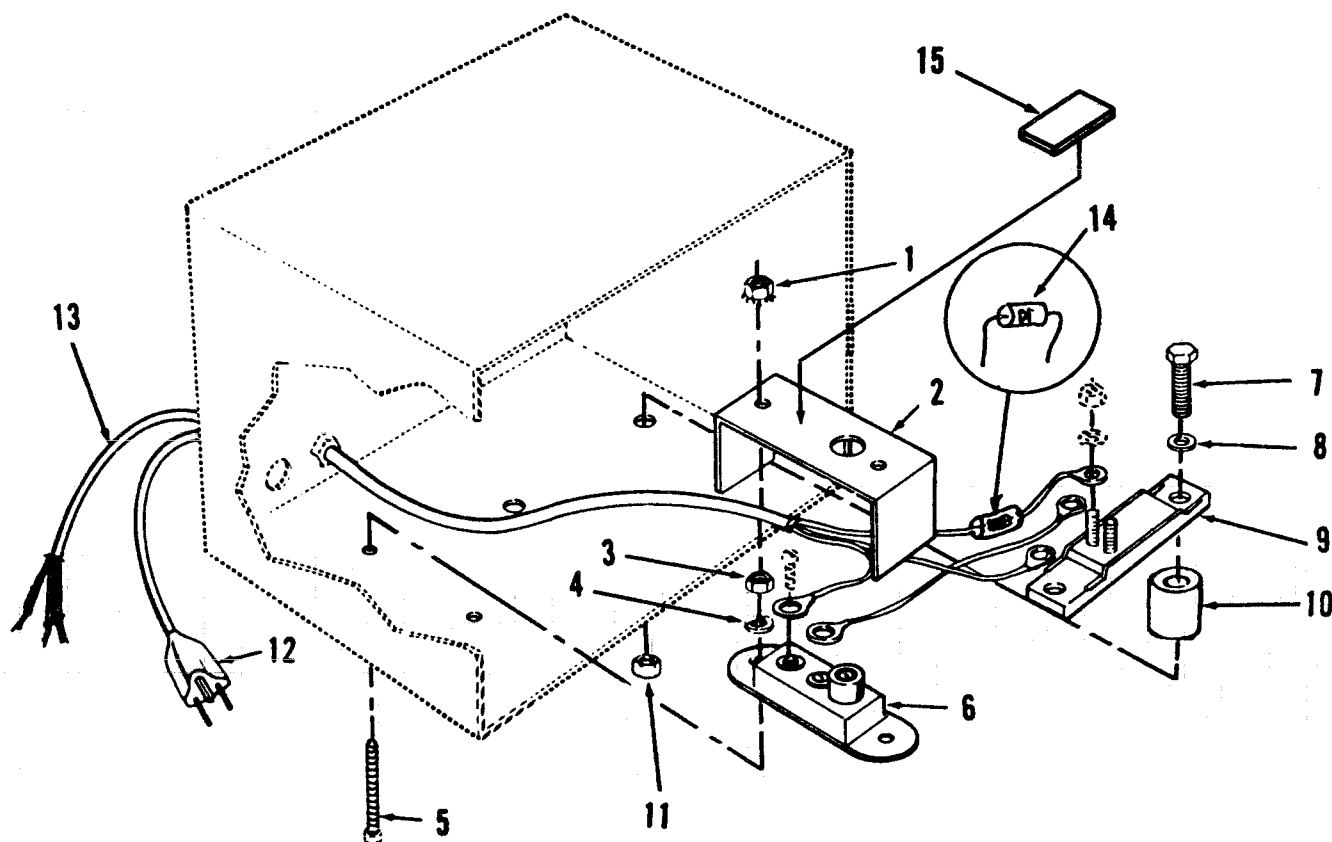


# Current Transformer

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Ground Terminal	8	302-0729	1	Bracket, Mounting - Transformer
	815-0203	1	Screw, Machine - Round Head, Brass (#10-32 x 7/8")	9	813-0100	6	Screw, Machine - Round Head (#10-32 x 1/2")
	871-0010	3	Nut, Hex - Brass (#10-32)	10	526-0008	6	Washer, Flat (13/64"ID x 7/16"OD x 1/32"THK)
	856-0003	1	Washer, Lock - EIT (#10)	11	856-0003	6	Washer, Lock - EIT (#10)
	854-0010	2	Washer, Lock - IT (#10)	12	870-0053	6	Nut, Hex (#10-32)
	526-0049	2	Washer, Flat - Brass (13/64"ID x 7/32"OD x 1/32"THK)	13	302-0764	1	Bracket Mounting - Transformer
2	813-0110	6	Screw, Machine - Round Head (#10-32 x 2")	14			Transformer, Current with Mounting Feet
3	854-0010	6	Washer, Lock - IT (#10)		302-0864	3	Ratio (Ammeter Scale)
4	302-0235	3	Clamp - Upper		302-0865	3	150/5 (0-75/0-150A )
5	302-0236	3	Clamp - Lower		302-0866	3	200/5 (0-100/0-200A)
6	302-0253	6	Shim		302-0608	3	250/5 (0-150/0-300A)
7			Transformer, Current Ratio (Ammeter Scale)		302-0608	3	400/5 (0-200/0-400A)
	302-0117	3	50/5 ( 0-50A )		302-0547	3	500/5 (0-250/0-500A)
	302-0076	3	75/5 ( 0-75A )		302-0471	3	750/5 (0-375/0-750A)
	302-0078	3	100/5 ( 0-100A )				
	302-0079	3	150/5 ( 0-150A )				
	302-0106	3	200/5 ( 0-200A )				
	302-0209	3	250/5 ( 0-250A )				
	302-0107	3	300/5 ( 0-300A )				
	302-0382	3	400/5 ( 0-400A )				
	302-0372	3	500/5 ( 0-500A )				
	302-0385	3	750/5 ( 0-750A )				



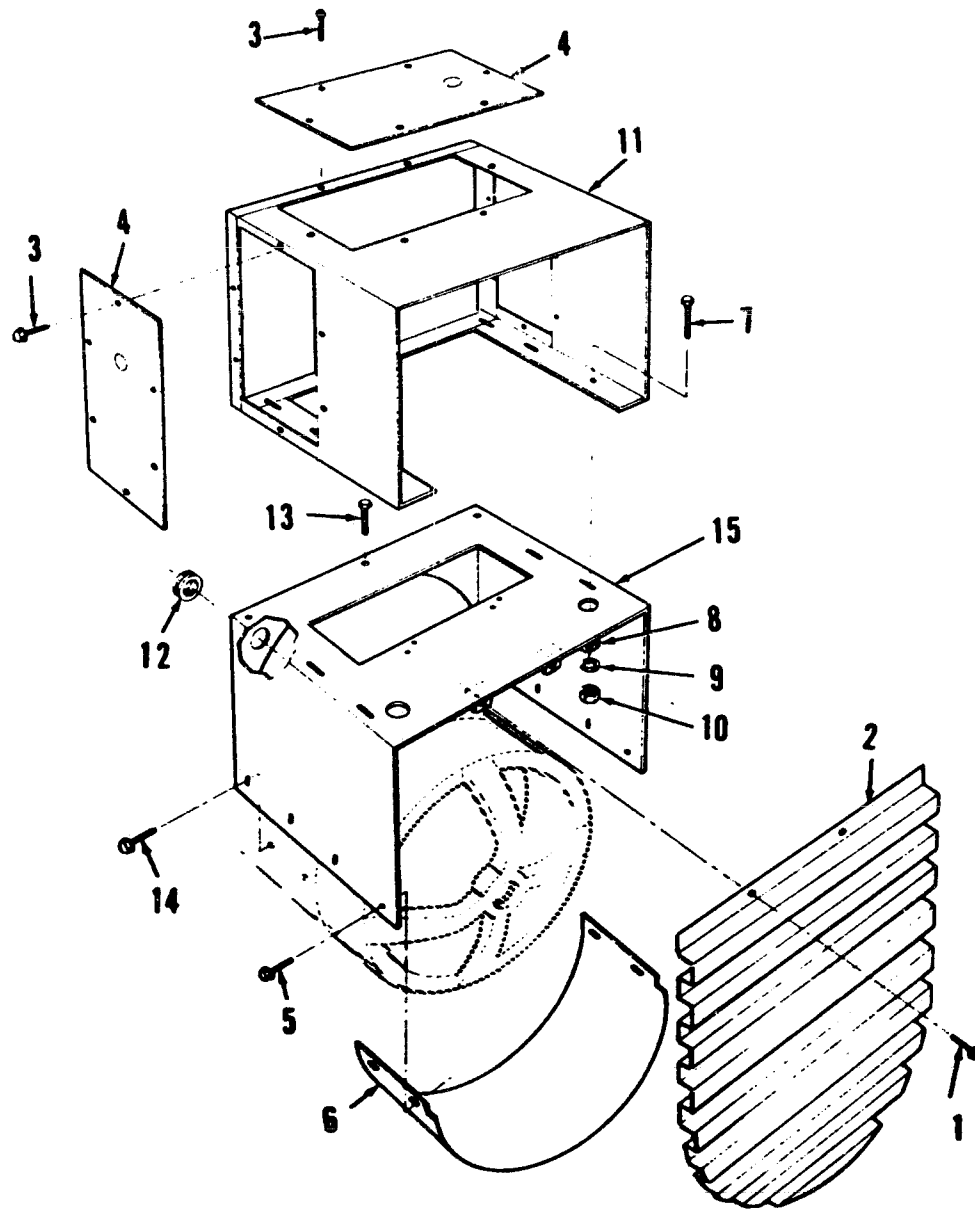
# Control Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0183	2	Nut, Self-Locking - Hex (#6-32)	9	333-0151	1	Heater, Electrical 120VAC
2	301-1886	1	Cover		333-0378	1	240VAC
3	860-0006	1	Nut, Hex (#6-32)	10	130-1107	2	Spacer
4	854-0006	4	Washer, Lock - IT (#6)	11	870-0257	2	Nut, Self-Locking - Hex (5/16-18)
5	812-0070	2	Screw, Machine - Round Head (#6-32 x 1-1/4")	12	335-0161	1	Cable, Electrical (120VAC Application, 7' LG)
6	309-0128	1	Thermostat - Adjustable	13	338-2181	1	Harness, Wiring with Diode, Less Plug (240VAC Application)
7	800-0034	2	Screw, Cap - Hex Head (5/16-18 x 2-1/4")	14	357-0013	1	Diode
8	526-0113	2	Washer, Flat (5/16")	15	98-3232	1	Decal, Warning - Shock Hazard



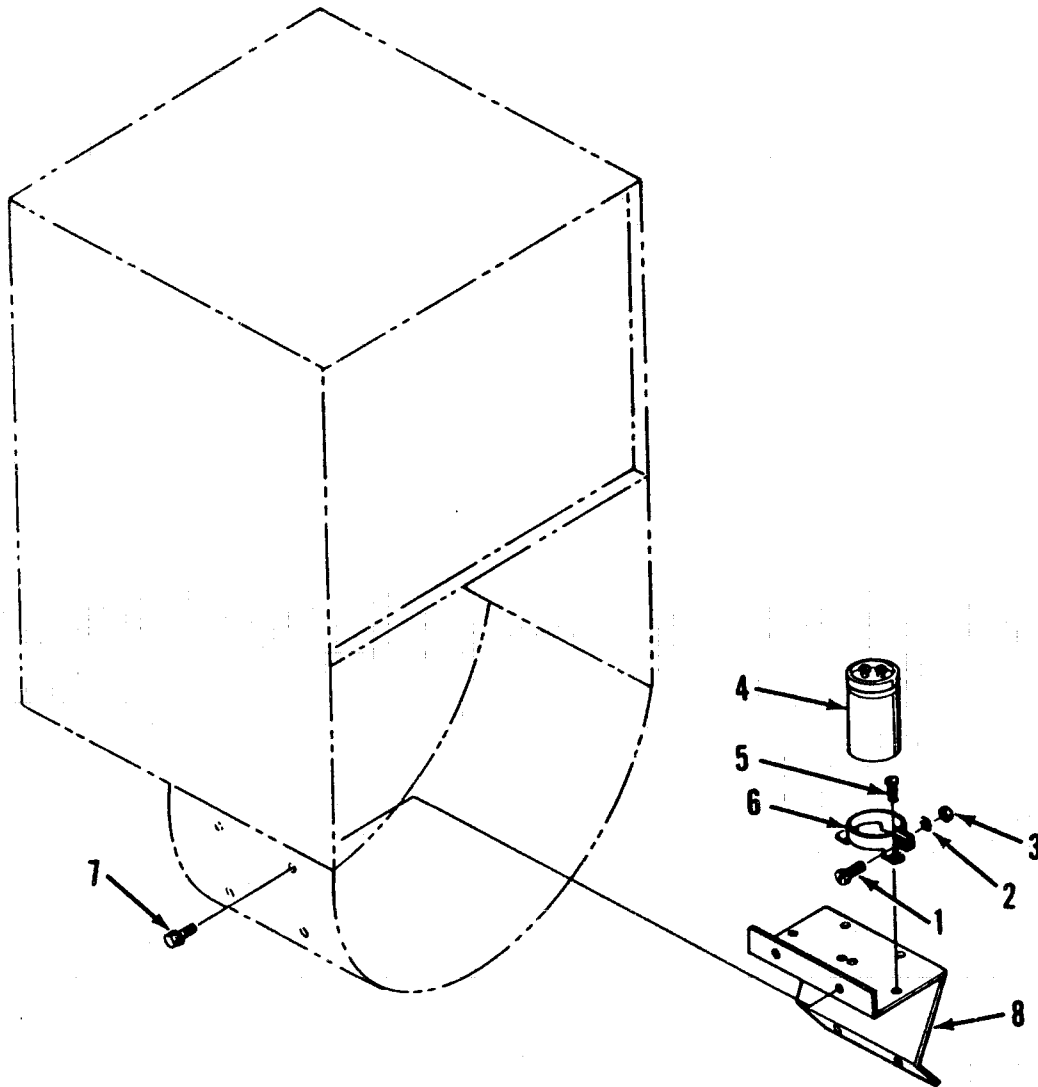
# Control Housing



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	8	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")	8	856-0006	1	Washer, Lock - EIT (1/4")
2	234-0370	1	Grill, Air - Generator Inlet	9	526-0018	5	Washer, Flat (17/64"ID x 5/8"OD x 1/16"THK)
3	815-0350	18	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")	10	870-0212	6	Nut, Hex (1/4-20)
4	301-3156	3	Panel, Control Box	11	301-3155	1	Housing, Control Box
5	821-0010	4	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")	12	508-0051	1	Grommet
6	234-0361	1	Wrapper, End Bell	13	821-0010	1	Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2")
7	821-0018	6	Screw, Self-Locking - Hex Washer Head (1/4-20 x 5/8")	14	821-0014	8	Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")
				15	301-3154	1	Saddle, Control Box Mounting



# Capacitor Assembly

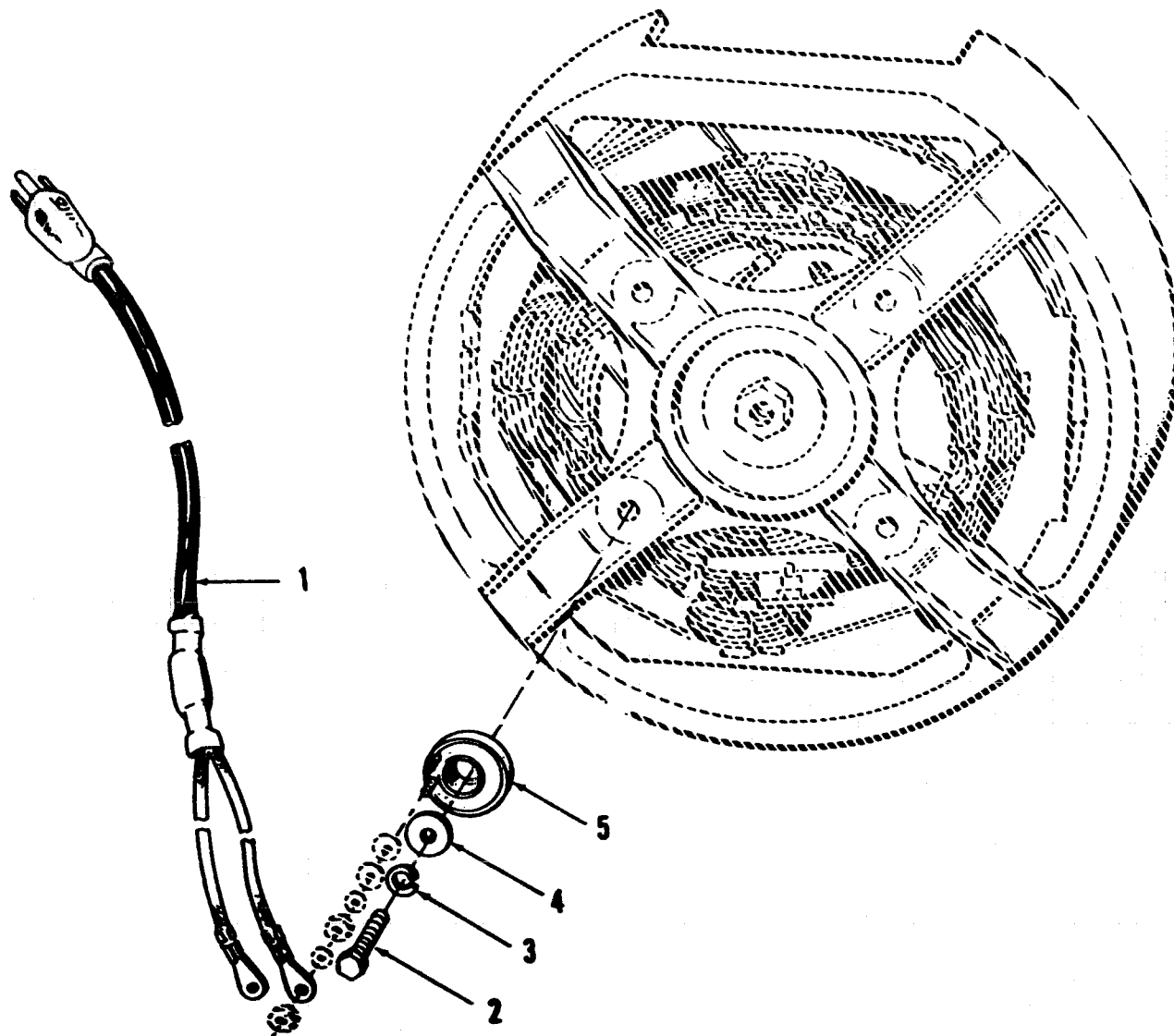


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0078	2	Screw, Machine - Round Head (#8-32 x 7/16")
2	850-0025	2	Washer, Lock - Spring (#8)
3	861-0007	2	Nut, Square (#8-32)
4	356-0090	2	Capacitor, Fixed - Electrolytic (1300 MFD)
5	812-0078	6	Screw, Machine - Round Head (#8-32 x 7/16")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	356-0102	2	Clamp, Mounting - Capacitor
7	821-0009	4	Screw, Self-Locking - Hex Washer Head (1/4-20 x 3/8")
8	356-0104	1	Bracket, Mounting - Capacitor Assembly (Bracket Not Required for Square Output Boxes)



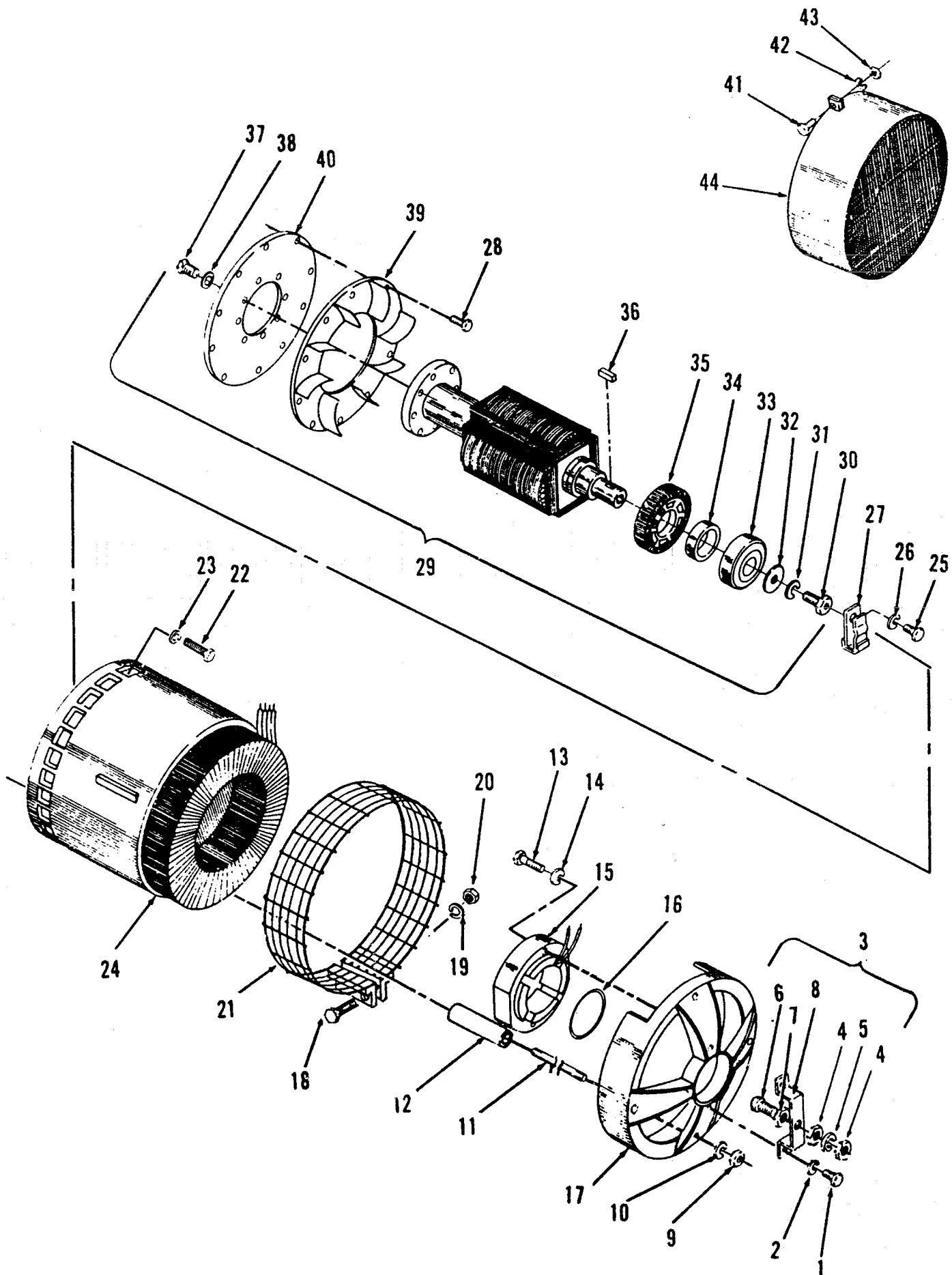
# Generator Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cable, Electrical (Includes Thermostat)	3	850-0038	1	Washer, Lock - Spring (1/4")
	335-0146	1	120 VAC	4	526-0158	1	Washer, Flat (1/4")
	335-0147	1	240 VAC	5			Heater, Electrical
2	800-0004	1	Screw, Cap - Hex Head (1/4-20 x 5/8")		333-0059	1	125 Watt, 120 VAC
					333-0192	1	200 Watt, 240 VAC



# Generator



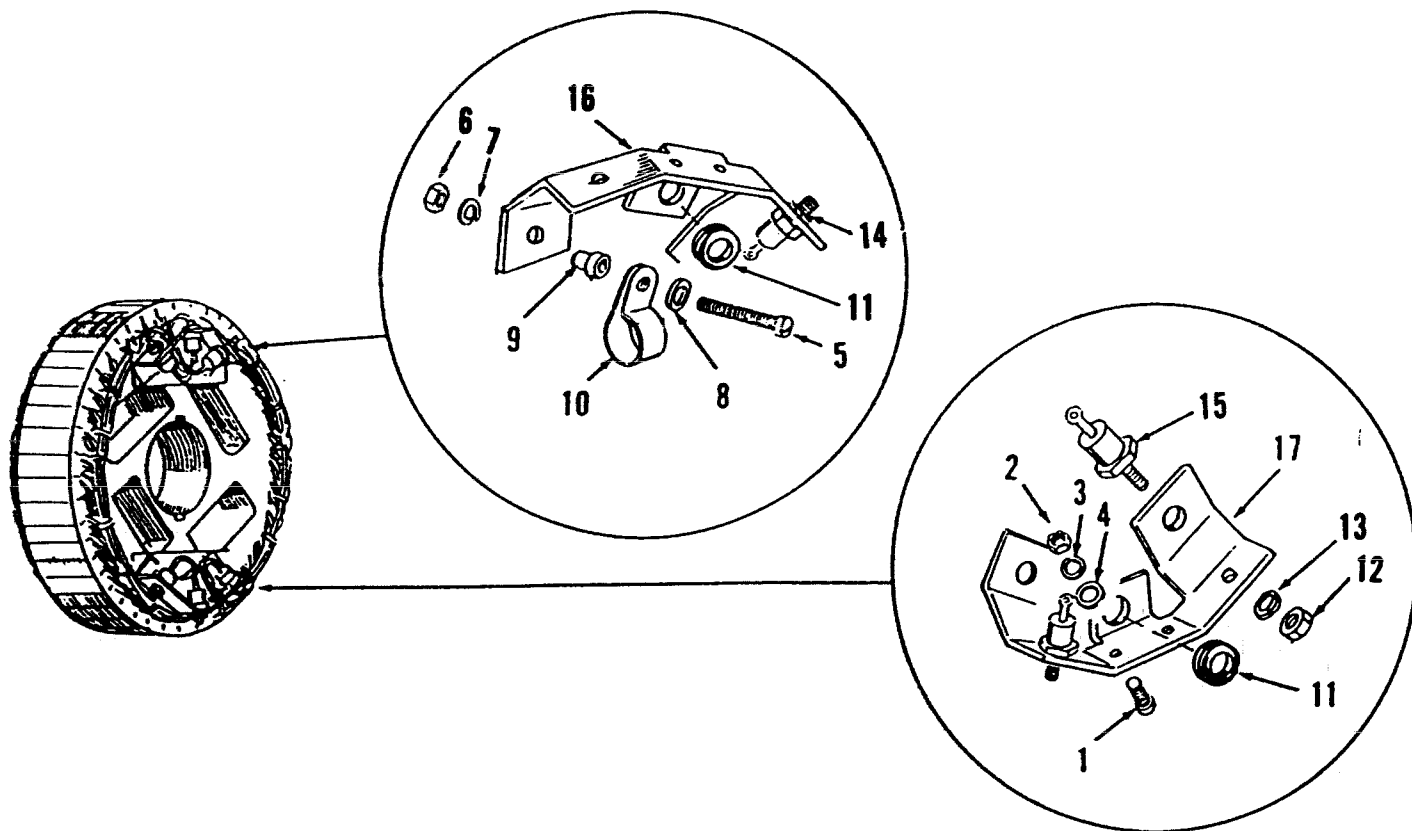


# Generator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	25	800-0048	1	Screw, Cap - Hex Head (3/8-16 x 3/4")
2	850-0040	2	Washer, Lock - Spring (1/4")	26	856-0010	1	Washer, Lock - EIT (3/8")
3	150-1456	1	Contact Assembly - Overspeed Switch (Includes Contact and Mounting Bracket)	27	150-0717	1	Switch, Overspeed
4	862-0001	2	Nut, Hex (1/4-20)	28	805-0019	8	Bolt, Place - Hex Head, Grade 8 (3/8-16 x 1-1/4")
5	853-0013	1	Washer, Lock - ET (1/4")	29			Rotor Assembly, Generator (Includes Fan, Drive Disk, Bearing, Exciter Rotor)
6	150-0723	1	Contact, Electrical				<b>55/60kW</b>
7	870-0250	1	Nut, Insulated		201-2670	1	Code E, F, H, L
8	150-1356	1	Bracket, Mounting - Contact		201-2673	1	Code L Extended Stack
9	862-0011	4	Nut, Hex - Grade 8 (3/8-16)		201-2688	1	Code L Enviromental Protected
10	850-0050	4	Washer, Lock - Spring (3/8")				<b>70kW</b>
11			Stud (3/8-16 UNC x)				Code E, F, H, L
	520-0722	4	17-3/32"LG		201-2672	1	Code L Extended Stack
	520-0723	4	17-15/16"LG		201-2674	1	Code L Enviromental Protected
	520-0724	4	18-29/32"LG		201-2690	1	
	520-0726	4	20-1/16"LG	30	800-0513	1	Screw, Cap - Hex Head, Modified W/Tapped Hole
	520-0727	4	21-7/16"LG	31	850-0079	1	Washer, Lock - Spring (3/4")
	520-0728	4	22-15/16"LG	32	526-0238	1	Washer, Flat - Steel Alloy (13/16"ID x 2"OD x 3/16"THK)
12	503-0611	4	Hose, Rubber	33	510-0101	1	Bearing, Ball
13	800-0009	4	Screw, Cap - Hex Head (1/4-20 x 1-1/2")	34	232-2102	1	Spacer, Sleeve
14	850-0040	4	Washer, Lock - Spring (1/4")	35			Rotor, Assembly - Exciter (See Separate Page for Components)
15			Stator, Exciter		201-1739	1	Standard
	220-2353	1	Standard		201-1845	1	Enviromental Protected
	220-1774	1	Enviromental Protected	36	515-0145	1	Key, Machine (1/4" x 1/4" x 7/8")
16	509-0125	1	Seal, Oil - "O" Ring	37	805-0035	8	Bolt, Place - Hex Head, Grade 8 (5/8-11 x 1-1/2")
17	211-0185	1	End Bell, Generator	38	526-0259	8	Washer, Flat - Hardened Steel (11/16"ID x 1-3/8"OD x 7/64"THK)
18	800-0008	2	Screw, Cap - Hex Head (1/4-20 x 1-1/4")	39	205-0089	1	Fan, Cooling - Generator
19	850-0040	2	Washer, Lock - Spring (1/4")	40	232-2078	1	Disk, Drive - Generator
20	862-0001	2	Nut, Hex (1/4-20)	41	800-0008	1	Screw, Cap - Hex Head (1/4-20 x 1-1/4")
21	234-0368	1	Screen, Air	42	850-0040	1	Washer, Lock - Spring (1/4")
22	800-1050	8	Screw, Cap - Hex Head (3/8-16 x 1")	43	862-0001	1	Nut, Hex (1/4-20)
23	850-0050	8	Washer, Lock - Spring (3/8")	44	234-0369	1	Cover, End Bell (Housed Sets Only)
24			Stator Assembly, Generator				
			<b>55/60kW</b>				
	Not Available		Code E				
	Not Available		Code F				
	220-1603	1	Code H				
	220-1455	1	Code L				
	220-1458	1	Code L Extended Stack				
	220-1787	1	Code L Enviromental Protected				
			<b>70kW</b>				
	220-2627	1	Code E				
	Not Available		Code F				
	220-1605	1	Code H				
	220-1457	1	Code L				
	220-1459	1	Code L Extended Stack				
	220-1789	1	Code L Enviromental Protected				



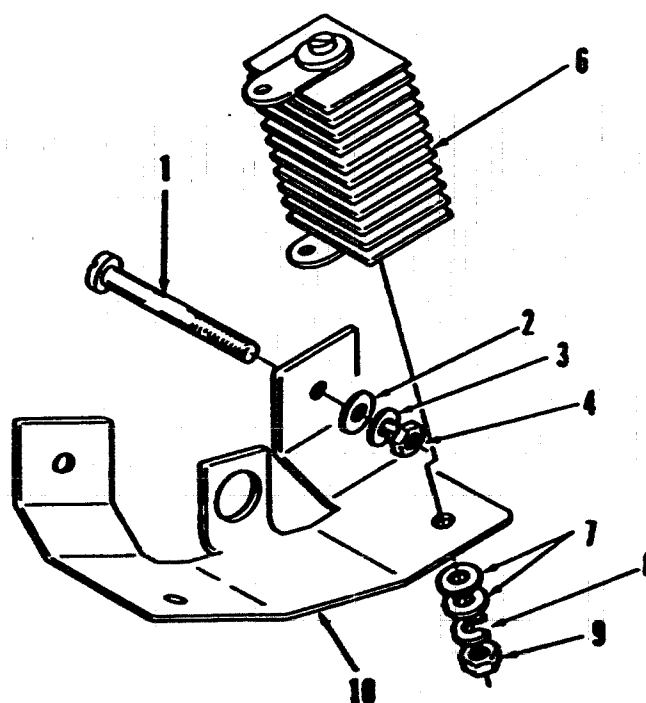
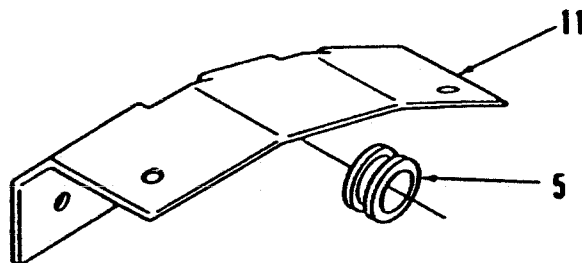
## Exciter Rotor Components



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Rotor, Exciter (Includes Heat Sinks and Diodes)	9	508-0187	4	Spacer, Stepped
	201-1739	1	Standard	10	332-0050	2	Clamp, Loop
	201-1845	1	Environmental Protected	11	508-0093	2	Grommet
1	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")	12	870-0053	6	Nut, Hex (#10-32)
2	870-0053	2	Nut, Hex (#10-32)	13	850-0030	6	Washer, Lock - Spring (#10)
3	850-0030	2	Washer, Lock - Spring (#10)	14			Rectifier - Positive (CR1, CR2, CR3)
4	526-0008	2	Washer, Flat (13/64"ID x 7/16"OD x 1/32"THK)		358-0097	3	Standard
5	813-0110	4	Screw, Machine - Round Head (#10-32 x 2")		358-0044	3	Environmental Protected
6	870-0053	4	Nut, Hex (#10-32)	15			Rectifier - Negative (CR4, CR5, CR6)
7	850-0030	4	Washer, Lock - Spring (#10)		358-0096	3	Standard
8	526-0009	4	Washer, Flat (#10)		358-0043	3	Environmental Protected
				16	363-0054	1	Sink, Heat
				17	363-0055	1	Sink, Heat



## Voltage Suppressor Components



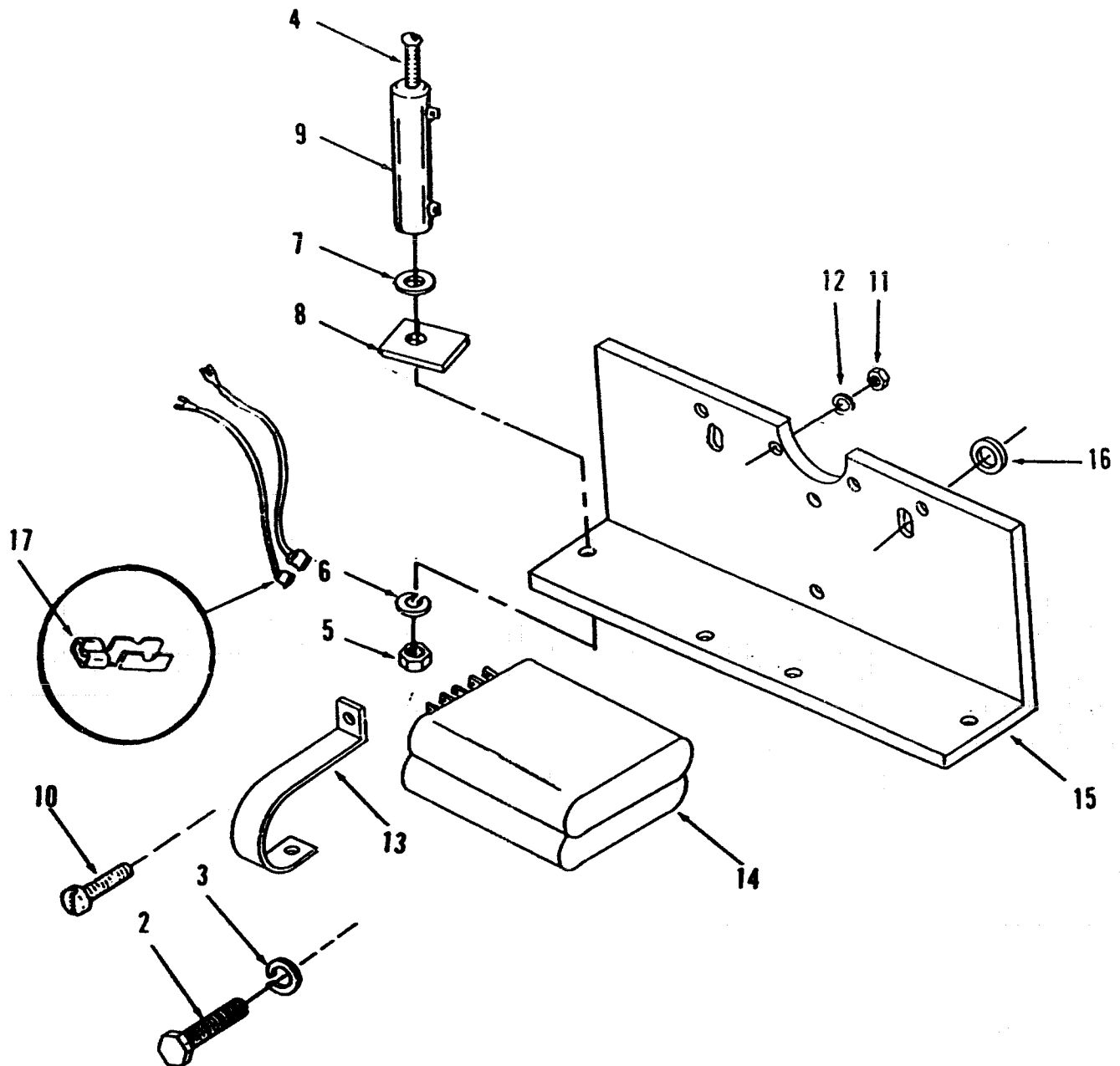
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	232-2445	1	Suppressor, Voltage	6	305-0526	1	Set, Voltage Suppressor
1	813-0112	4	Screw, Machine - Round Head (#10-32 x 2-1/2")	7	526-0140	4	Washer, Flat (#10)
2	526-0140	4	Washer, Flat (#10)	8	850-0030	4	Washer, Lock - Spring (#10)
3	850-0030	4	Washer, Lock - Spring (#10)	9	870-0053	4	Nut, Hex (#10-32)
4	870-0053	4	Nut, Hex (#10-32)	10	363-0054	1	Sink, Heat
5	508-0093	2	Grommet	11	363-0055	1	Sink, Heat







# Voltage Regulator Filter Heavy Duty

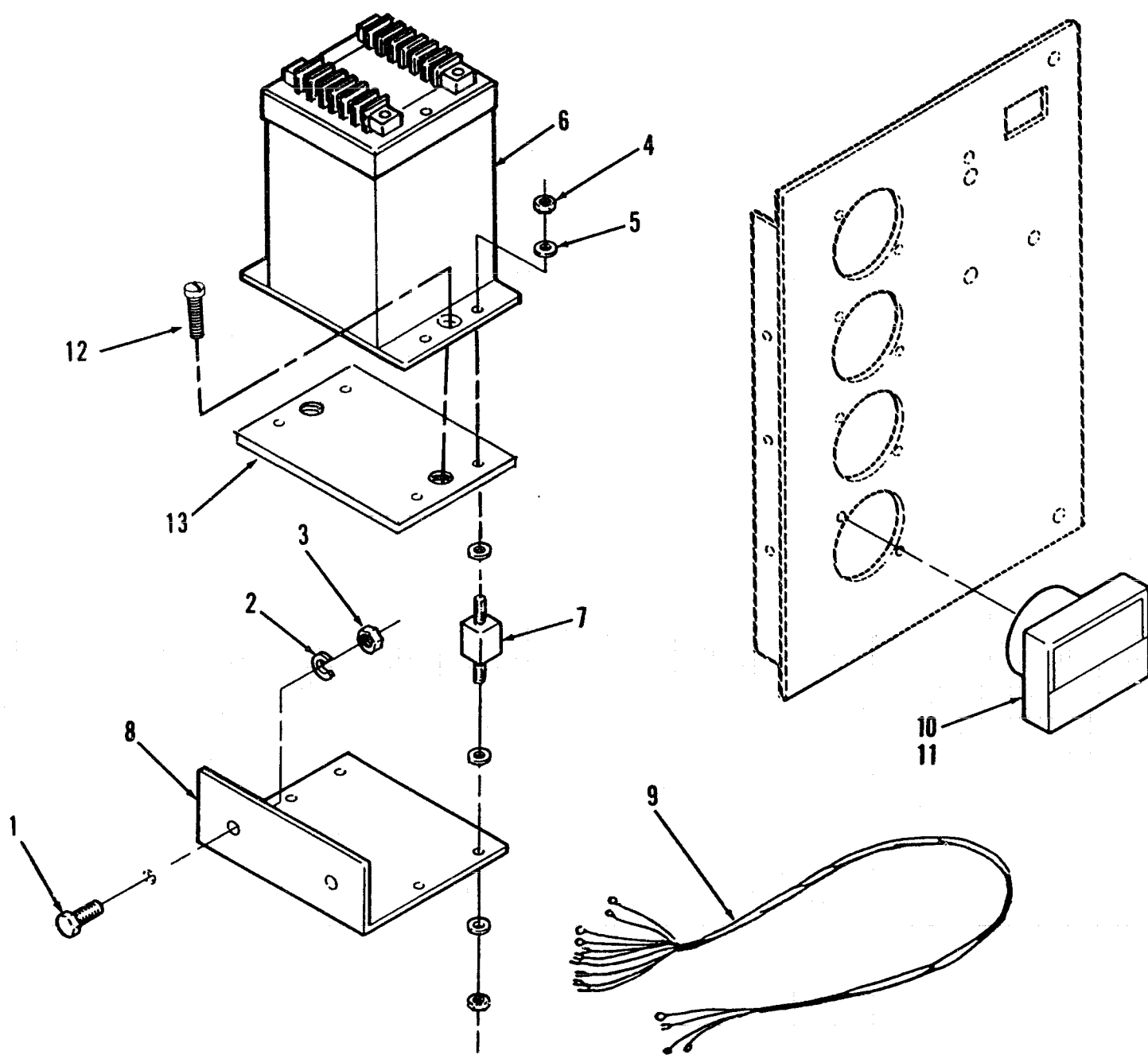


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
2	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")
3	850-0040	2	Washer, Lock - Spring (1/4")
4	812-0165	2	Screw, Machine - Round Head (1/4-20 x 4-1/2")
5	862-0001	2	Nut, Hex (1/4-20)
6	850-0040	2	Washer, Lock - Spring (1/4")
7	304-0427	2	Washer, Centering
8	304-0292	2	Insulator
9	354-0025	1	Resistor
10	813-0098	4	Screw, Machine - Round Head (#10-32 x 3/8")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
11	870-0053	4	Nut, Hex (#10-32)
12	850-0030	4	Washer, Lock - Spring (#10)
13	370-0007	2	Strap, Mounting
14	312-0188	2	Capacitor
15	232-2218	1	Bracket
16	526-0018	15	Washer, Flat (1/4")
17	332-0529	8	Terminals Bare (14-18 AWG)
	332-1279	16	Terminals Insulated (14-18 AWG)



# Wattmeter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0017	2	Screw, Self-locking - HWH (5/16-18 x 1/2")
2	850-0045	2	Washer, Lock - Spring (5/16")
3	862-0014	2	Nut, Hex (5/16-18)
4	860-0008	8	Nut, Hex (#8-32)
5	856-0002	16	Washer, Lock - EIT (#8)
6	302-1843	1	Transducer, Watt
	302-1833-01	1	Voltage Code E
7	402-0354	4	Voltage Codes H, L, Z
			Mount, Shock

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	301-6987	1	Bracket, Mounting
9	338-1936	1	Harness, Wiring
10	302-1722	1	Meter, Watt (Less Dial)
11	302-1721-02	1	Dial, Wattmeter
	302-1721-03	1	Scale 0-50 kW
	302-1721-04	1	Scale 0-70 kW
		1	Scale 0-90 kW
12	813-0102	2	Screw, Machine - Round Head (#10-32 x 5/8")
13	319-0030	1	Plate, Support - Transducer



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